THE NAVYA-NYĀYA DOCTRINE OF NEGATION

The Semantics and Ontology of Negative Statements in Navya-nyāya Philosophy

BIMAL KRISHNA MATILAL

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To My
Parents and Uncle

EDITOR'S INTRODUCTION

Navya-nyāya ("The New Method," "The New Logic") exerted for many centuries a profound influence on Indian thought. In metaphysics and epistemology it challenged other schools; its benefits to others in these fields lay in its forcing them to organize their views rationally and systematically in order to oppose the newcomer. Navya-nyāya logic, on the other hand, being found unassailable, was taken over by others, so that one finds Mīmāṃsakas and Vedāntins coming to use Navya-nyāya logic even in their diatribes against the Nyāya school. Thus the scholar who would gain a thorough understanding of any school of Indian philosophy since the time of Udayana (eleventh century), or at the very least since the time of Gaṅgeśa, must concern himself with Navya-nyāya, especially with its logic.

But the author and the editor of the present book hope that a concern for Navya-nyāya may spread further. We believe that if its works are translated and explained they will furnish matter of interest to Western philosophers as well as Indian. Especially important, we believe, is an interest in Navya-nyāya to those who would gain a view of philosophy as a whole, for in this school we see arising from the Indian culture, which has been too one-sidedly characterized as mystical and spiritual, a school of analysis as rigorously rational and unswayed by emotion or mystical experience as the analytic schools of the modern West. A similar antidote to the one-sided view of Indian thought might be furnished by a study of the Indian grammarians. But one cannot understand the Indian grammarians without understanding Sanskrit. It is our hope that non-Sanskritists can and will come to understand something of Navya-nyāya.

If Navya-nyāya is to be understood by Western philosophers, its expositor must go beyond the word-for-word translation of texts. He must try — and no amount of theoretical difficulty should dissuade him — to translate from system to system. That is to say, he should render Navya-nyāya arguments that are phrased in an intensional logic of abstractions into arguments phrased in an extensional logic of classes and propositions. It will be found that while the values of the terms present radical differences as between the two systems, the process of argument is often very similar. The expositor should warn the reader of ultimate incompatibilities; still, those incompatibilities will not hinder the reader's understanding if he is given a "systematic" as well as a literal translation. Indeed, it is only by such systematic translation that men trained in the one system can be brought to understand the other.

B. K. Matilal has gone further in systematic translation than the editor was able to go when he published his *Materials for the Study of Navya-nyāya Logic* in this series sixteen years ago. The advance is not merely welcome, it is neces-

sary; for the subject of Matilal's work presents peculiar problems to a Western understanding.

The doctrine of negation in Navya-nyāya is like a keystone that holds in place the interlocking voussoirs of an arch. It is essential to Navya-nyāya metaphysics, which hypostatizes 'absence' into a category. It is the peculiar mark of Nyāya epistemology, for the Nyāya insisted, against the opposition of all other schools, that one can *see* the absence of an object in a given place. And it is a keystone of Navya-nyāya logic, for in this system which presents a hierarchy of abstractions rather than a hierarchy of classes it is only by the use of negation that universal laws can be framed. There is an absence of occurrence of humanity in such a locus as is not a locus of mortality. That is to say, all men are mortal. Thus the Navya-nyāya doctrine of negation meets and reinforces other Navya-nyāya concepts at every angle. If one is to explain it satisfactorily, one must explain the Navya-nyāya system as a whole.

The divisions of the present work are arranged to suit that need. The first half of the book is taken up by systematic translations of Navya-nyāya concepts. The greater part of the second half is given over to literal translations of two standard works of Navya-nyāya on negation, the chapter on *Abhāva* from Gaṅgeśa's *Tattvacintāmaṇi* and Raghunātha's independent monograph, the *Nañ-vāda*. The former represents what one might call the orthodox wing, the latter the radical wing, of the Navya-nyāya school.

As editor I am responsible for two matters which should be brought to the reader's attention: the use of punctuation and the reproduction of the Sanskrit texts.

The double quotation mark, besides its common functions such as the marking off of passages quoted from other texts, is given in this book the duty of enclosing exemplar propositions and verbalized cognitions (*jñānāni*). Fragments of a proposition or of a verbalized cognition, and hence single words and terms, are enclosed in single quotes. Both editor and author have been at pains to prevent quotation marks of either sort from stealing into the explanations of a Nyāya analysis where they would be misleading. Thus, given the Nyāya cognition "The mountain is fiery," one may say that the word 'fiery' forms part of the predicate of the verbal expression of the cognition. But in the cognition itself fire is a qualifier of the qualificand mountain. Fire and mountain here go without quotes because what are meant by the Nyāya are actual substances, not words.

The texts of Gaṅgeśa and Raghunātha have been reproduced photographically from the Bibliotheca Indica edition of the *Tattvacintāmaṇi* with the commentary of Mathurānātha (Calcutta: Asiatic Society of Bengal, 1884–1901). Wherever the translator has found fault with the reading of these texts, his correction will be found in the notes.

Daniel H. H. Ingalls
Editor, Harvard Oriental Series

Cambridge, Massachusetts
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PREFACE

From time to time in writing this book I have stopped to ask myself for whom I was writing. Much as I have pondered the question, I have not yet arrived at a satisfactory answer. I believe now that this is a healthy state of affairs: no restrictions and no prejudices. I very much hope that Sanskritists and philosophers, along with all the various combinations that these two classes can form, will find something to interest them within these pages. I am myself interested in both Sanskrit and philosophy, and I believe that I have chosen a subject which allows their integration. The age of my material seems to justify a philological treatment, whereas the content of the material pleads for the use of philosophy. It is this method of combined philology and philosophy that I claim to have employed here.

I do not pretend that my method is unexceptionable. It takes some time to convince oneself that neither the writer nor the reader need fall between two stools. But he who would study Navya-nyāya must accustom himself to straddling. The advantages, on the other hand, of such a mixed method seem to me numerous. Many of the traditional puzzles of Navya-nyāya cease to be puzzling when they are transposed into the more austere forms of symbolic logic. We can apply Wittgenstein's famous pronouncement to the Navya-nyāya and say that many of the apparent oddities and philosophical embarrassments are due to the way in which the philosophers have used, or misused, the Sanskrit language. Another advantage can be seen in widening the audience of those able to participate in the evaluation or appreciation of Navya-nyāya. Formerly only the Sanskrit-trained pandit has been able to derive any enjoyment from this secluded study. He rarely had either the inclination or the equipment to convey his knowledge to the international world of philosophy. By employing methods of present-day logic I hope I have aided the sortie of Navya-nyāya.

The reader may be disappointed not to find here more study of historical and chronological problems. I am aware of the importance of such problems, and I wish I could have included within these pages the small amount of historical research that I have done. Considerations of time have prevented me. I hope at some time in the future to deal with those problems at length.

A word may be in order concerning my general appreciation of Navya-nyāya. As indicated above, I believe that there are in Navya-nyāya cases of genuine confusion that are easier to spot from the vantage point of five hundred years of scientific progress and with the resultant refinement of logical tools. But I must also add that I feel a great admiration for the Navya-naiyāyikas, who with the limited means at their disposal set out in search of what we may call "objective reality." In their school, it seems to me, this search was more straightforwardly

pursued than in any other philosophical tradition of India. The masters of Navya-nyāya did not lay down conclusions first and justify them later with theory. They were seriously engaged in following reality wherever it might lead them, imposing as softly as possible their own prejudices. I have admired this trait greatly. It is precisely the same trait that I find admirable among the creative workers of modern science and philosophy.

Besides my personal interest, there is another value to this study in the historical perspective that such studies offer. I believe that India should not, indeed cannot, be left out of any general study of the history of logic and philosophy.

I take this opportunity to record my debt to those who have substantially improved this book. To begin chronologically, I wish first to thank Principal Dr. Gaurinath Sastri, who has proved to be my *nyāyakalyāṇamitra*, for it was he who first encouraged me to enter the dense and thorny world of Navya-nyāya when I was considering more favorably the sunny world of Kāvya and Alaṁkāra. Dr. Sastri kindly introduced me to the late Anantakumar Tarkatirtha, who for one intensive year taught me the rudiments of Navya-nyāya. Later in my career as a student I would often return to this brilliant and critical-minded pandit for stimulating discussions that caused many a sleepless night. At this point I was working toward my M.A. at Calcutta University, where I was fortunate enough to be able to take courses under Taranath Tarkatirtha, with whom I did my special paper on Navya-nyāya. When I began teaching at the Government Sanskrit College in Calcutta, I continued my studies under the expert guidance of two remarkable pandits, Sri Kalipada Tarkacarya and Sri Madhusudana Nyayacarya. During this period, by a fortunate coincidence, the four teachers I have mentioned were all at the Sanskrit College, and the discussions that resulted proved of inestimable value to my pursuit of Navya-nyāya. Encouraged by Sri Madhusudana Nyayacarya and by Sri Bisvabandhu Tarkatirtha, I completed a traditional degree, that of Tarkatīrtha in the Anumānakhaṇḍa. Shortly after that I decided upon a course of action that I had long been contemplating. For some time I had been in correspondence with Professor Daniel H. H. Ingalls, whose pioneer book on Navya-nyāya had revealed to me new facets of Indian logic. In one of his letters he asked me to consider the possibility of coming to Harvard in order to introduce myself to the work being done there by Professor Willard Van Orman Quine on the borderlines of philosophy and mathematical logic. I perceived the value of such an extension of my studies and discussed the matter with my teachers. For the most part they showed themselves to be extremely broad-minded where one would expect tradition to be opposed. I decided then to enter the graduate school of Harvard University.

My expectations were far surpassed, and I found myself eagerly swept into the middle of *la nuova logica*. After taking Professor Quine's courses, I continued my studies in mathematical logic with the help of Professor Dagfinn Føllesdal, who was ready to take time from a very full teaching schedule to guide me in the subtleties of this technical field.

But it is especially to one man that I owe the limited ability I now have of

relating Navya-nyāya to modern logic, and that is Professor Ingalls. I cannot begin to thank fully this lively, learned, and humane scholar for all his help and encouragement. To anyone reading this book it will be immediately obvious how deep my debt to him is. Especially in the matter of translation Professor Ingalls has been of invaluable aid, for he has read through each line, comparing it with the original and making substantial changes both in idiom and in idea.

In the summer of 1964 I was at the University of Hawaii to attend the Fourth East-West Philosophers' Conference, where I met Professor Kalidas Bhattacharyya of Visva-Bharati University. He was kind enough to read a few pages of the first draft of this book and to make some important suggestions for improving it. I also take this opportunity to thank Professor A. K. Warder, who suggested some important corrections. I want to thank, too, my good friend Jeffrey Masson, who was at Harvard when I was preparing my doctoral dissertation there and who constantly encouraged me. Through long acquaintance we have come to share certain common attitudes toward Sanskrit scholarship that are reflected in the present book, which is based upon my dissertation. Finally I wish to thank the Harvard-Yenching Institute for making my stay at Harvard possible and for supporting the publication of this work.

B. K. M.

Toronto, Ontario
August 1966

CONTENTS

PART I

The Basic Concepts of Navya-nyāya Philosophy

ABBREVIATIONS

KKh Śrīharṣa. *Khaṇḍanakhaṇḍakhādya*. Edited by Laxmana Sastri Dravida. Chowkhamba Sanskrit Series 21. Benares: Chowkhamba Book Depot, 1914.

NK Śrīdhara. *Nyāyakandalī*. A commentary on *Praśastapāda-bhāṣya*. Edited by Vindheswariprasad Dvivedin. The Vizianagram Sanskrit Series 6, vol. 4. Benares: E. J. Lazarus and Co., 1895.

NS Gautama. *Nyāyasūtra*. In *Nyāyadarśana*, vol. I. Edited with the *Bhāṣya* of Vātsyāyana, Uddyotakara's *Vārttika*, Vācaspati Miśra's *Tātparya-ṭīkā* and Viśvanātha's *Vṛtti* by Amarendramohan Tarkatirtha and Taranath Tarkatirtha. Calcutta Sanskrit Series 18. Calcutta: Metropolitan Publishing House, 1936.

PTN Raghunātha Śiromaṇi. *Padārtha-tattva-nirūpaṇa*. Edited with the commentaries of Raghudeva and Rāmabhadra by Vindheswariprasad Dvivedin. Reprinted from the 1903–1905 issues of *The Pandit*. Benares: E. J. Lazarus and Co., 1916.

TC Gaṅgeśa Upādhyāya. *Tattvacintāmaṇi*. Edited with *Māthurī* in *TCM*. Edited with *Gādādharī* and *Dīdhiti* in *TCDG*. Edited with *Jāgadīśī* and *Dīdhiti* in *TCDJ*.

TCA Jayadeva (Pakṣadhara) Miśra. *Tattvacintāmaṇy-āloka*. A commentary on *TC*. Portions printed in *TCM*.

TCD Raghunātha Śiromaṇi. *Tattvacintāmaṇi-dīdhiti*. A commentary on *TC*. Edited with *Jāgadīśī* in *TCDJ*. Edited with *Gādādharī* in *TCDG*.

TCDG Gadādhara Bhaṭṭācāryya. *Gādādharī*. A commentary on *TCD*. Edited with *TC* and *TCD* by Pandit Bamacharan Bhattacharyya and others. Chowkhamba Sanskrit Series 42. Benares: Chowkhamba Sanskrit Series Office, 1913–1927.

TCDJ Jagadīśa Tarkālaṅkāra. *Jāgadīśī*. A commentary on *TCD*. Edited with *TC* and *TCD* by Somanatha Nyayopadhyaya and others. Chowkhamba Sanskrit Series 29. Benares: Chowkhamba Book Depot, 1906–1908.

TCM Mathurānātha. *Māthurī* or *Tattvacintamāṇi-rahasya*. A commentary on *TC*. Edited by Kamakhyanatha Tarkavagisha. Bibliotheca Indica edition. 4 parts. Calcutta: Asiatic Society of Bengal, 1884–1901.

1

INTRODUCTION

§ **1.1** The concept of absence (*abhāva*) plays a larger part in Navya-nyāya (New Nyāya) literature than comparable concepts of negation play in non-Indian systems of logic. Its importance is apparent from a consideration of only one of its typical applications. Navya-nyāya, instead of using universal quantifiers like 'all' or 'every', is accustomed to express such a proposition as "All men are mortal" by using notions of absence and locus. Thus we have: "Humanity is *absent* from a locus in which there is absence of mortality." An understanding of the concept of absence is crucial to the understanding of Navya-nyāya.

§ **1.2** Absence was accepted as a separate category (*padārtha*) in the earlier Nyāya-Vaiśeṣika school. The philosophers of that school tried always to construe properties or attributes (to use their own terms: *guṇa* 'quality', *karma* 'movement', *sāmānya* 'generic property', *viśeṣa* 'differentia', etc.) as separate entities over and above the substrata or loci, i.e., the things that possess them. They also exhibited this tendency in their interpretation of negative *cognitions* or denials. Thus they conceived of absence as a property by a hypostasis of denial. The negative cognition "There is no pot on the ground" or "A pot is absent from the ground" was interpreted as "There is an *absence of pot* on the ground." It was then easy to construe such an absence as the object of negative cognitions — and hence as a separate entity. Moreover, cognitions like "A cloth is *not* a pot," "This is *not* that," and "This is different from that" were also treated in a similar manner. "A cloth is *not* a pot" was explained as "A cloth has a *mutual absence of pot*, i.e., difference from pot." And a mutual absence was regarded as merely another kind of absence.

§ **1.3** In the above we have analyzed cognitions instead of propositions or sentences. The concept of cognition (*jñāna*) is another basic concept of Nyāya. The present study begins with an examination of cognition (Chapter 2) and of other such concepts of Navya-nyāya as are essential to a clarification of Navya-nyāya discussions of absence. Cognition presupposes the notion of a *cognitum* or a content (*viṣaya*) of cognition. Thus, an examination of the nature of *content of cognition* occupies us in Chapter 3.

A negative cognition (a cognition that takes cognizance of an absence) belongs

to the category of cognition that Nyāya characterizes as *viśiṣṭa jñāna* 'qualificative or determinate cognition' (see §§ 2.6, 2.7, and 2.8 for an explanation of this concept). A cognition of this type involves the notion of a relation relating a qualifier to a qualificand (see § 2.6). In conformity with this view, an absence is regarded as a qualifier and is said to be related to its locus, the qualificand, by what Nyāya calls a *svarūpa* relation. The notion of *svarūpa* relation raises many interesting problems in Nyāya as far as its concept of relation in general is concerned. Thus the next two sections of our exposition (Chapters 4 and 5) are devoted to a clarification of the Nyāya concept of relation. The concept of *svarūpa* relation is also crucial to the understanding of the Navya-nyāya discussion of some important relational abstracts — content-ness (*viṣayatā*), counterpositive-ness (*pratiyogitā*), limitorship (*avacchedakatā*), etc. Accordingly, we shall proceed to a discussion of such concepts.

In speaking of an absence, Nyāya asserts, we implicitly stand committed to the following concepts. Whenever we assert that an absence of an object *a* (say, a pot) occurs in some locus (say, on the ground), it is implied that *a* could have occurred in, or, more generally, could have been related to, that locus by some definite relation. In recognizing an instance of absence (say, the absence of *a*), we actually presuppose the following counterfactual conditional: If *a* were not absent, *a* would have occurred in or would have been related to that locus by such-and-such a relation. Thus, in speaking of absence of *a*, we should always be prepared to specify this such-and-such relation, that is, we should be able to state by which relation *a* is said to be *absent* from the locus. This relation should not be confused with the relation by which the absence itself, as an independent property, occurs in the locus. The latter relation is called, as we have already noted, a *svarūpa* relation. The first relation is described in the technical language of Navya-nyāya as the 'limiting or delimiting relation of the relational abstract, counterpositiveness, involved in the instance of absence in question' (*pratiyogitāvacchedaka-sambandha*). Thus, a pot usually occurs on a ground by *saṃyoga* or conjunction relation. When it is absent there, we say that a pot does not occur on the ground by conjunction or that a pot is not conjoined to the ground. By this simple statement we actually imply, according to Nyāya, that there is an absence on the ground — an absence the counterpositive (*pratiyogin*) of which is a pot, and the delimiting relation of being the counterpositive (i.e., counterpositive-ness = *pratiyogitā*) of which is conjunction. While giving the identity condition of an instance of absence, Nyāya demands that we should be able to specify this delimiting relation whenever necessary. The following inequality statements will indicate the importance of considering such a relation:

(1) "Absence of pot $\neq$ absence of cloth."
(2) "An absence of pot by the relation of conjunction $\neq$ an absence of pot by the relation of inherence."[1]

[1] The class of the loci of the first absence here is the class of all objects except those which are in contact with a pot (such as a piece of ground). But the class of the loci of the second absence is the class of all objects except the parts (*avayava*) of a pot where the pot is present by inherence.

Moreover, we are already using the notion of delimitor (*avacchedaka*). A part of an object is sometimes described with reference to the whole object in the fashion: the object x as delimited (*avacchinna*) by its part p_1. Thus 'this mountain as delimited by its top' actually refers to the top of this mountain. Besides this, in Navy-nyāya a relational abstract like *locushood* (*adhikaraṇatā*) is often said to have a delimiting property or limitor. In understanding or in expressing such relational abstracts, we must understand or express their limitors (their delimiting properties and delimiting relations). In short, a relational abstract usually refers back to an "ordinary" property like cow-ness or pot-ness as its *limitor*. Actually, it is impossible to read a serious text in Navya-nyāya without constantly coming across numerous concepts such as *pratiyogitā* (counterpositive-ness) and *avacchedakatā* (limitor-ship). Thus we shall examine the nature of these concepts in Chapters 6, 7, 8, and 9.

In arguing a point, Nyāya often mentions the defects of circularity or of mutual dependence (*ātmāśraya*, *anyonyāśraya*). Simplicity of assumptions (*kalpanālāghava*) is considered to be decisive in favor of a theory as against heaviness or manifoldness of assumptions (*kalpanāgaurava*). The search for a consecutive character (*anugata-dharma*) that may tie different instances of manifold nature together so that our speech behavior or our understanding of them can be simplified was always welcome in Nyāya discourse. It was believed that such a consecutive property helps in theorizing about those manifold instances found in widely differing contexts. These important concepts are briefly examined in Chapter 10.

The general problem of negation in philosophy and logic is very briefly discussed in Chapter 11 with some references to relevant Western theories. To substantiate the historical background of the problem in Nyāya, we give, in Part II, translations of the relevant portions of Gautama and Vātsyāyana, the earliest exponents of the Nyāya school, with explanatory notes. A brief historical survey of the Nyāya-Vaiśeṣika literature dealing with negation (or, to be precise, absence) is also given. Selected passages of the two major Navya-nyāya (New Nyāya) authors, Gaṅgeśa and Raghunātha, with translations and notes, constitute Part III of the book.

2

ON *JÑĀNA* OR COGNITION

§ **2.1** In the West logic has been primarily concerned with propositions or sentences. Navya-nyāya, like the older Indian systems of logic, deals rather with what it calls *jñāna*, by which it means something close to 'particular instances of cognition'. An instance of cognition, it is true, can be shown to be ultimately related to some verbal form, namely, to a statement or sentence. In the case of a determinate or qualificative cognition (*savikalpa* or *viśiṣṭa jñāna*), with which Navya-nyāya is chiefly concerned, the relation is very close. But the *jñāna* itself is not a form of language, and scholars have differed in their English translations of the term; it has been rendered as 'knowledge',[1] 'cognition', 'awareness', 'apprehension', and 'judgment'. In selecting 'cognition' or 'particular instance of cognition' as a translation, I am aware that the ordinary sense of the English word must be modified to adjust it to the concept designated by *jñāna*, a concept I shall try to explain here.

§ **2.2** *Jñāna*, as it has been understood in both the Old and the New Nyāya schools, is given a wider usage than in other Indian philosophical systems like Sāṃkhya or Vedānta. Thus Gautama, the founder of the Nyāya system, asserted that *jñāna* 'instance of cognition', *buddhi*, and *upalabdhi* 'apprehension' are but different names for an identical object.[2] In the Nyāya school, therefore, to be conscious means to be conscious of something, there being no such thing as "pure consciousness"; and this, again, means to cognize, that is, to have a *jñāna* of something. The conscious subject, or self, is analyzed as the subject that *has* cognition or *jñāna*, the obvious conclusion being that a *jñāna* or a cognition-

[1] D. H. H. Ingalls in *Materials for the Study of Navya-Nyāya Logic* uses the translation 'knowledge'. He tells me that he chose that translation chiefly for etymological reasons, the Sanskrit root *jñā* being cognate with Old English *knawan*, and that he holds no further brief for it. J. N. Mohanty, in "On the Nature of the Prāmāṇya-Theory," *Our Heritage*, 8 (1960), 37, feels that *pramā* (a true *jñāna*) is closer than *jñāna* to 'knowledge', I suppose, because 'knowledge' in English carries with it a sense that what is *known* is true.

[2] *NS* 1.1.15. The *sūtra* is clearly directed against the Sāṃkhya school, where *jñāna* was described as the modification of *buddhi*. Vātsyāyana remarked "*buddheḥ svābhāvikaṃ caitanyam āstheyam*," which may be interpreted to support the equation, "*jñāna* = consciousness." See also K. Bhattacharyya, "The Indian Concept of Knowledge and Self," *Our Heritage*, 2 (1954), 221 ff.

particular is a quality (*guṇa*) or a qualifier (*dharma*)[3] of the self. Thus the Nyāya school posited *jñāna* as something belonging to the self (actually it was called a *guṇa*[4] of the self), which is its substrate or locus. A *jñāna* is a particular just as a color spot or a tone is a particular. It can very well be viewed as an *event* in the sense that a particular tone or sound can be thought of as a physical event.[5] The former is as much a product of a collocation of causal conditions as the latter. Furthermore, a *jñāna* is a momentary event, being in this respect also like a tone or sound. A *jñāna* cannot be said to be a modification of anything in the sense that a pot is taken as the modification of a lump of clay. It can be called a "mental" state only in the sense that what the Naiyāyikas call mind (*manas*) is a necessary factor (actually the instrument)[6] in the production of a *jñāna*. Again, we can call a *jñāna* an act if we would thereby imply that there is always *something* toward which this act is directed. But since it has been the convention to translate the term *kriyā*[7] (which in the Nyāya system means only *physical* movement—the movement of material bodies, including atoms) by the term 'act' or 'action', I shall here qualify the term 'act' when applied to *jñāna* with the word 'nonphysical'.

The parallelism between a sound and a *jñāna* can be carried further. Different sound-particulars are distinguished by their varying degrees of pitch and tone, which can be experienced directly. Different material bodies are distinguished by their size, color, position, and so on. But how can different cognition-particulars be distinguished from each other? The Naiyāyikas' answer is quite definite here. Cognition-particulars are to be distinguished by their reference to different objects.[8] Cognitions are always cognitions *of* or *about* . . . , and what is denoted by the expression that fills the blank here is to be taken as the object or objects of such cognitions. Thus, epistemologically the Naiyāyikas believe that cognition always refers, beyond itself, to some object, but unlike the Bhāṭṭas (another school of Indian philosophy) they do not believe that it brings about any new property (*jñātatā* = known-ness) in the object.

[3] The notion of *dharma* and *dharmin* is explained in § 2.10.

[4] There exists some controversy over the correct interpretation of the Vaieṣṣika *guṇa*. See K. H. Potter, "Are the Vaiśeṣika 'Guṇas' Qualities?" *Philosophy East and West*, 4 (1954), 259, and the discussion that followed in subsequent issues of the same journal.

[5] An 'event', as I shall use the term here, is something having a temporal coordinate but no spatial coordinate. Note also that I am excluding God's cognition in this exposition.

[6] There is good reason for emphasizing this point. Since the notion of self was prevalent, the function of mind was rather insignificant. It was taken as an instrument for cognizing, just as a pen is an instrument for writing. Thus the expression "Mind thinks" is looked upon as comparable to the expression "The pen writes."

[7] The grammarians held, as opposed to the Nyāya view, that a *kriyā* (action) is the meaning of any verbal root (*dhātvarthaḥ kriyā*). Jayanta (*Nyāyamañjarī*, d. 20) argued against this view and remarked that *jñāna* is *phalasvabhāva* (of the nature of a product) rather than *kriyāsvabhāva* (of the nature of an act or a process). The notion of an instrument, however, comes from the paradigm of the description of a physical act, e.g., "*kuṭhāreṇa chinatti*" ("He cuts with an ax"). The product here is the felling of a tree, where the ax is the instrument. Similarly, in the case of "*manasā jānāti*" ("He knows with the mind") or "*cakṣuṣā paśyati*" ("He sees with the eye") mind or eye is the instrument, *jñāna* the product.

[8] "*Arthenaiva viśeṣo hi nirākāratayā dhiyām*," Udayana. *Nyāyakusumāñjali*, chap. iv, verse 4a. This line also occurs in Śālikanātha's *Prakaraṇapañcikā*, p. 15.

It may be well to enumerate some of the nonphysical acts that the Naiyāyikas wish to include under the term *jñāna* and to enumerate some other nonphysical acts to which they will not apply the term *jñāna*. Perceiving, inferring, knowing, doubting, wondering, guessing, remembering, dreaming, etc., can be put in the first list. Desiring, willing, hoping, rejoicing, suffering, etc., can be put in the second list.

§ **2.3** The Nyāya considers that the self-transcending reference to some object, or the object-directedness, or the property of being related to some object or other (*saviṣayakatva*), is the distinctive character of a *jñāna*. One may point out (Gadādhara has actually done so in a different context) that the said property is not peculiar to *jñāna* but belongs to some other nonphysical acts. However, the prevailing opinion among the Naiyāyikas is that other nonphysical acts such as desire and aversion refer to objects only indirectly,[9] that is, they all ensue upon some kind of *jñāna* or have as their basis some cognition. Hence the *viṣayatā* (intentionality?) that pertains to them is borrowed, in some sense, from a *jñāna*. Thus it is that only a *jñāna* has a primary or "unborrowed" *viṣayatā*.

One may decide, by now, that "primary" *viṣayatā* is the distinctive property of the nonphysical acts mentioned in the first list (§ 2.2) and that "borrowed" *viṣayatā* distinguishes the mental acts of the second list from those of the first. But an important exception is to be made. Pleasure and pain, joy and sorrow, though they are mental states, do not have any *viṣayatā* at all. They proceed, according to Nyāya, from some instance of *jñāna* or other nonphysical acts which have an objective reference, but they are themselves only the results of such nonphysical acts. They are mere feeling without any self-transcendental reference. Thus, not all mental phenomena have *viṣayatā* as their distinctive mark. It is, furthermore, very difficult to specify the condition of borrowed *viṣayatā* as distinguished from primary *viṣayatā*. Perhaps the theory is based upon the commonsense argument that one cannot desire or hate something unless one has some acquaintance, directly or indirectly, with that thing or has formed an idea of that thing, however vague that idea may be. But, in any case, such a distinction is not crucially important for the Naiyāyikas and so has often been ignored.

§ **2.4** Before proceeding further with an exposition of the concept of *jñāna*, we will do well to make clear the meaning of various Western terms that have been used in comparable contexts. Since a *jñāna* is called a mental phenomenon as opposed to a physical phenomenon like sound, we may begin by considering the criterion by which Franz Brentano tried to distinguish mental phenomena like thinking, believing, desiring, loving, and hating from physical acts like riding and holding. He proposed the concept of "intentional inexistence" as a means of distinguishing the mental phenomena.[10] The object of an intentional act or attitude

[9] "*Icchādeḥ saviṣayakatvaṃ yācita-maṇḍana-nyāyena.*" This is often quoted by the Sanskrit commentators.

[10] Franz Brentano, *Psychologie vom empirischen Standpunkt*, 1874, vol. I, book II, chap. i: "The Distinction between Mental and Physical Phenomena," trans. D. B. Terrell in R M. Chisholm, ed., *Realism and the Background of Phenomenology*, *pp*. 50 f.

is such that one cannot infer from it either that a thing exists or that a thing does not exist. Such is not the case with the object of a physical act. We can desire or think about or even perceive, in hallucination or in a dream, a winged horse, but we can ride only real horses. Some, however, argued that there is no such alleged property of mental phenomena in general and that only thinking and desiring may have such a property.[11] Brentano argued that all mental phenomena, including even joy and sorrow (affirmation and denial, love and hate, desire and aversion), ensue upon some *presentation* and refer to what is present in it. Thus they are all directed toward some object that intentionally "inexists." [12] We may note here the significant contrast with the Nyāya concept of a *viṣayatā* pertaining to *jñāna* or to other nonphysical acts.

I shall pursue the problem posed by Brentano a little further because it has a deep philosophical importance. Since imaginary objects like Pegasus and unicorns (which are also the objects of mental acts) do not have a counterpart in the real world, Brentano maintained that such objects have the property of "intentional inexistence." But perhaps he did not imply that they belong to a separate world of their own apart from the real world. Later on, Frege tried to explain the basic problem by use of the dichotomy of *Sinn* (sense) and *Bedeutung* (reference) of names and sentences.[13] Names like Pegasus have *sense* but no *reference* in ordinary sentences. But, according to Frege, in an *indirect* context (comparable to the context involving mental acts) a name refers to its sense. Thus Pegasus in the context of a mental act cannot be said to have an ordinary reference in the real world. This Pegasus problem of modern logic may be linked to the problem of error in Nyāya epistemology in the following way (see also § 3.2). The Nyāya stated the problem of error or false cognition as follows. What does a false cognition refer to? The object of a false cognition does not exist, whereas the objects of all other cognitions do exist and hence are identifiable with some entity in the real world. The Nyāya says that an instance of a false cognition has a *viṣayatā* of a complex construction which is analyzable into constituent parts and that these constituents are, in turn, identifiable as real objects. In other words, they also tried in their own way to avoid positing a world of subsistent entities or of "unactualized possible" objects.

§ 2.5 We have noted that Navya-nyāya analyzes *jñāna*-particulars, whereas modern logic, or analytic philosophy in general, under the influence of formal logic, tends to formulate its questions in linguistic or quasi-linguistic terms concerning statements or propositions rather than in terms of psychological or quasi-psychological entities. Thus the logical positivists formulated the old "problem of knowledge" linguistically and tried to avoid the traditional insistence upon some "disembodied spirit," some world-cognizing ego, as the central concept in solving epistemological problems. It may be noted that the Nyāya doctrine of self

[11] *Ibid.*, p. 51.

[12] Brentano says, "We then defined mental phenomena as *presentations* and such phenomena as are *based upon presentations*; all the rest belong to the physical." *Ibid.*, p. 58.

[13] See Gottlob Frege, "Über Sinn und Bedentung," pp. 86–92.

(*ātman*) is not exactly equivalent to that of a world-cognizing ghost. Self, according to the Naiyāyikas, is a substance that is the legitimate substrate of the cognition-particulars, just as a particular color has, as its substrate, a colored pot.

In Western logic the need has been felt for redefining propositions as independent of their subjective concomitants in order to free logic from the defects of "psychologism." Even so, a proposition in modern logic is not considered identical with its linguistic counterpart. Rather, we now have an abstract sense of the word 'proposition' [14] which can be described, following Frege, as being "the objective content of thought which is capable of being the common property of many." [15] In Frege's analysis a meaningful sentence has a proposition as its meaning (*Sinn*) and a truth value (truth or falsity) as its reference (*Bedeutung*). Such meanings or senses are, in Frege's view, abstract entities. Alonzo Church has suggested that the sense of a sentence "may be described as that which is *grasped* when one *understands* the sentence, or that which two sentences in different languages must have in common in order to be correct translations each of the other." [16] According to his proposal, a proposition is to be regarded as a *concept* of some truth value. To quote Church: "Therefore a proposition, as we use the term, is an abstract object of the same general category as a class, a number, or a function. It has not the psychological character of William of Ockham's *propositio mentalis* or of the traditional *judgment*: in the words of Frege, explaining his term *Gedanke*, it is 'nicht das subjective Tun des Denkens, sondern dessen objectiven Inhalt, der fähig ist, gemeinsames Eigenthum von Vielen zu sein.' " [17] Church also points out that in asserting a proposition we need not make any reference to a particular language, whereas in asserting a sentence we do use an actual language.

Modern "non-Platonic" philosophers do not wish to accept such abstract entities. They contend that a problem arises under the Frege-Church theory of propositions when we inquire about the criterion for the identity of a proposition. One may explain the identity of propositions by an appeal to the synonymity of sentences. But this problem of synonymity has been difficult for modern philosophers. It is finally related to the problems of intentionality and of indirect (*ungerade*) context.[18]

W. V. Quine has proposed to take instead of propositions what he calls 'eternal sentences' as the vehicles of truth values in logic.[19] He rejects the notion of a proposition as the translational constant, for according to his theory of the indeterminacy of translation there is no uniquely correct standard of translation. Again, he does not regard a proposition as a constant of the so-called philosophical

[14] Compare Frege's 'Gedanke'. Also compare Bernard Bolzano's 'objective proposition': "An objective proposition is not a combination of words, but only the sense which a certain combination of words may express" (*Wissenschaftslehre*, § 28). For a good discussion of the notion of proposition, see also Alonzo Church, "Propositions and Sentences" in I. M. Bocheński, *The Problem of Universals*. I owe this information about Bolzano to Professor Dagfinn Føllesdal.

[15] Frege, "Sinn," p. 89 n.

[16] Alonzo Church, *Introduction to Mathematical Logic*, p. 25. Italics are mine.

[17] *Ibid.*, p. 26. For a difference in his sense of 'proposition' and Frege's use of 'Gedanke' see also p. 27, especially note 72.

[18] See W. V. Quine, *Word and Object*, p. 202.

[19] *Ibid.*, §§ 42 and 43. For 'eternal sentence' see especially p. 208.

analysis or paraphrasing, for, according to him, in philosophic paraphrase no synonymity claim is needed. A sentence as a repeatable sound pattern can be regarded as a universal. Strictly speaking, what admits of truth and falsity is not a sentence, but an individual event of its utterance or what may be called a sentence-token. A sentence-type, unless it is relativized to some time, person, and occasion, changes its truth values. But in order that the laws of logical inference may apply to recurrences of the sentence-type without being unrewardingly complex, it is necessary that a sentence-type that is true in one occurrence be true also in the next. Faced with such problems, some philosophers posit the abstract concept of propositions as 'surrogate truth vehicles'. But Quine thinks that we can avoid such posits by using an *eternalized* sentence in place of the ordinary sentence-token, for an *eternal sentence*, according to Quine's definition, is *simply* true and "not true now or in this mouth." [20]

Almost in a similar spirit, P. F. Strawson has proposed to take what he calls 'statement' as the standard possessor of truth values. Statements, according to him, are assertive sentences "imbedded in the context." They are to be identified "not only by reference to the words used, but also by reference to the circumstances in which they are used, and, sometimes, by the identity of the person using them." [21] L. J. Cohen has given another suggestion. He criticizes both Quine and Strawson on the ground that neither of them considers that a sentence may also change its truth value because of what he calls the feature of 'meaning-change'. He has proposed that the concept of saying may well replace the concept of proposition. A *saying*, according to him, is that which "a man repeats to himself, communicates to others, or treats now as a premise and now as a conclusion." [22]

Now to return to our original issue. In Navya-nyāya, members of that class of *jñāna*-particulars which the Naiyāyikas call *viśiṣṭa jñāna* or 'qualificative cognition' are taken as the constant for philosophic analysis. One may argue that such cognition-particulars are incurably private and are also momentary events like the event of an utterance of a sentence-token. Utterance can at least be a common property and hence can admit of a general structural analysis after being dissociated from the person who utters it. But of a private cognition-particular how can one attempt a philosophic analysis? From the Nyāya point of view the answer seems to be simple. All qualificative (*viśiṣṭa* or *savikalpa*) cognitions can be correlated to some linguistic form, i.e., to some actual or possible utterance or sentence. By analyzing such a sentence (actual or possible) from the point of view of logic, the Naiyāyikas consider themselves to have analyzed the corresponding cognition-particular. The problem of privacy is thus avoided, for what can be conveyed or "meant" (to use a highly provocative term) by the sentence can very well be treated as intersubjective.

§ 2.6 I cannot fully clarify the issues involved here, but I shall try to shed a little light on them. In the epistemological event connected with a cognition-

[20] *Ibid.*, p. 227.

[21] P. F. Strawson, *Introduction to Logical Theory*, pp. 4, 214 f.

[22] L. J. Cohen, *The Diversity of Meaning*. For a criticism of Quine and Strawson see § 31, and for the concept of *saying* see § 19.

particular, let us distinguish between what I shall call the *epistemic attitude* and what may be taken as the *objective content* of that event. The epistemic attitude is what is private to each individual, but the objective content may very well be a public property. It is difficult to specify the epistemic attitude in each case, but we can describe the epistemic attitude as an inclination to believe or disbelieve or even to doubt the objective content of the assertion, provided that a given cognition is of an assertive or qualificative type. While we may note in passing that according to the Nyāya not all *jñāna*-particulars are of the qualificative type,[23] in those that are, the epistemic attitude may fairly be described as above. What is important for the purpose of analysis in Nyāya is not the epistemic attitude but the objective content of a qualificative cognition-particular.

Now we must consider the problem of how far cognition-particulars can be regarded as bearers of truth values. In most textbooks of Western logic a proposition or a statement is defined as that which can be significantly said to be true or false. In a similar vein, we might say that a qualificative (*viśiṣṭa*) cognition can be said to be either true or false. But one should note that the Naiyāyikas do not use this characteristic as a definition. A qualificative cognition may indeed be discursively formulated as a declarative sentence, but this linguistic formulation is felt by the Naiyāyikas to be inessential to the cognition-particular. One and the same cognition may be expressed in different natural languages. What is essential is the meaning (to use again this provocative term), or the concept as a whole, of the possible formulation. It is possible also for one to cognize a thing or things together without having a possible formulation in any language. We can regard such cognitions as simple awareness or as mere acquaintance with the object. The Naiyāyikas class them as *nirvikalpa* (nonqualificative or prejudgmental) cognitions. We may think of a cognition as the result of a mental process in the person cognizing. And this process is directed toward an object (in the widest sense of the word). Furthermore, the process may or may not make one or more of the features of the object appear more distinctly than the other features to the cognizer. If it does so, which is not possible in the case of a nonqualificative cognition, then the object toward which the process is directed is called by the Naiyāyikas the *dharmin* or the qualificand (*viśeṣya*) of the cognition, and the feature or features emphasized are called the *viśeṣaṇas* or qualifiers of the cognition. In other words, the qualifier and the qualificand are taken to be the constituents of the cognition-particular in question. We shall use the convention that the qualificative cognition "has" the qualifier and the qualificand. For convenience, we use ambiguously the expressions: 'the qualifier *a* of the cognition *c*', 'the qualificand *b* of the cognition *c*' and 'the qualifier *a* of the qualificand *b*', where the differences in the meanings of the preposition 'of' are, however, clear. It goes without saying that the qualifier is cognized as belonging to the qualificand and that the qualificand is cognized as possessing the qualifier.

[23] I am referring to the *nirvikalpa* perception here. I am avoiding the term 'indeterminate' (which is usually offered as the translation of *nirvikalpa*) because that will not clarify the issues involved here.

§ 2.7 We may now proceed to analyze the "content" of a given qualificative cognition. The content, taken as a whole, is the given totality to which the cognition refers. Thus, if the cognition is expressed as "This pot is blue," the content will be not simply the pot present before me, but *something that is present before me, and is a pot* (or, better, *has pot-ness*), *and is also blue.* The content of a qualificative cognition, then, taken as a whole, is articulated in such a way that a certain feature or features of it will be emphasized as features of, or occurrent in, or related to, the remaining portion or portions of the content. What feature or features are emphasized depend partly on the person cognizing and partly on the situation as well as the presentation involved. We can then describe a qualificative cognition as ascertaining by means of a more or less thoroughgoing analysis that something possesses or "has" a certain feature or features, e.g., a certain quality, a certain universal, a certain magnitude, a certain denomination, a certain property (in the widest sense), or a certain relation. Thus a qualificative cognition may be said to be an answer to questions of the form: "What is this?" "What property does it possess?" "When or where does it occur?" But it is not necessary that such questions actually precede every act of a qualificative cognition, for a cognition may occur so immediately that a state of uncertainty does not have time to develop.

From another point of view, we can describe a qualificative cognition as communicable. To communicate it, one usually gives it a verbal form. Here, some remarks on the structure of the Sanskrit language may be in order. Good Sanskrit seldom uses the verb 'to be' to connect a noun with its adjective. There is also no rigid convention regarding the order of words like nouns and adjectives. Thus, we quite frequently meet such expressions of qualificative cognition as "*nīlo ghaṭaḥ,*" which can be translated either as "The pot [is] blue" or as "The blue pot." Nyāya, in this case, usually regards 'the pot' as expressing the qualificand and 'blue' as expressing the qualifier. This raises no problem, apparently, as long as one keeps in mind the scheme of the Vaiśeṣika categories, according to which a pot is a substance and blue-color is its quality.

But it is more likely that the qualificand-qualifier distinction is an epistemological distinction rather than a metaphysical one. In other words, these are epistemological concepts rather than metaphysical (or even linguistic) concepts (see also § 2.8). Consider the cognition whose verbal expression is "*daṇḍī chatrī*" ("The staff-bearer the umbrella-bearer"). Here the linguistic expression does not help us much to distinguish the qualificand from the qualifier. The structure of the epistemological situation involved is, perhaps, our chief guide in helping us distinguish the qualificand from the qualifier. Because of the ambiguity of the Sanskrit expression, we can translate it either as "The staff-bearer has an umbrella" or as "The umbrella-bearer has a staff." But each epistemological situation is unique, since the qualificand-qualifier analysis differs in each case.

§ 2.8 One may wonder by now whether the traditional subject-predicate distinction in the Western tradition is similar to this qualificand-qualifier distinction in Navya-nyāya. The subject-predicate distinction at the grammatical level prob-

ably supplied the basis for the metaphysical distinction between universal and particular in the West. The philosophic doctrine of the subject-predicate distinction as noted by the Scholastics in the West roughly states that particulars can appear in a discourse as subjects only, never as predicates, whereas universals or nonparticulars generally can appear either as subjects or as predicates. Such a theory might have its genesis in the paradigm of simple sentences like "Socrates is wise." But this becomes more and more obscure as we apply it to more complicated sentence forms. Consequently this theory has been criticized by some modern philosophers.[24] Although the subject-predicate distinction (even at the metaphysical level) might be philosophically important,[25] I shall not enter into this intricate problem here.

As far as Navya-nyāya is concerned, I do not think that the qualificand and the qualifier are grammatical categories, as the subject and the predicate, in some contexts at least, are thought to be in the West. They are logical or epistemological categories, as are the subject and the predicate in many contexts in the West. In modern terminology, they might be called semantic or metalinguistic concepts. For convenience, I shall use, following the Navya-nyāya writers, such expressions as "the qualificand is a particular pot," which might be taken as abbreviations for "the qualificand is *expressed* by 'a pot' ", etc.

It should be noted that although the qualificand-qualifier distinction is not grammatical, the grammatical structure of the sentence expressing a qualificative cognition helps us to note this distinction, more often than not. A probable exception to this has been noted in § 2.7. It might also be noted that the subject-predicate distinction at the grammatical level was not unknown in the Indian tradition (cf. the terms *uddeśya* and *vidheya*; also such rules as "*uddeśyam anuktvā ca na vidheyam udīrayet*"). This distinction was also applied at the epistemological level by the philosophers. But it is interesting to note that even at the epistemological level the *uddeśya-vidheya* distinction (i.e., subject-predicate distinction in the Sanskrit tradition) does not always coincide with the qualificand-qualifier distinction. As Jagadīśa remarks in *TCDJ* in the chapter "Pakṣatā," qualifiers and predicates (*vidheya*) do not always go together ("*vidheyatvaṃ tu na prakāratāniyatam . . . kvacid-viśeṣya-vṛttir api*"). When we infer, for example, the presence of fire on the mountain, the epistemological predicate is fire, but the qualifier will be sometimes fire and sometimes the mountain or occurrence-on-the-mountain (*parvata-vṛttitva*), depending, in this case, upon the grammatical structure of the linguistic expression of the inferential cognition. The linguistic expression might be either "The mountain is fiery" ("*parvato vahnimān*") or "(There is) fire on the mountain" ("*parvate vahniḥ*"), depending upon the whole process of inference, viz., the structure of the premises, etc.

From a different point of view, the Nyāya qualificand-qualifier distinction might be said to have originated from the problem of the substance-quality dichotomy of the earlier school. But it nevertheless crystallized, in the later school,

[24] For a severe attack on this distinction see F. P. Ramsay, "Universals" (1925), in R. B. Braithwaite, ed., *The Foundations of Mathematics*, pp. 116–117.

[25] P. F. Strawson, *Individuals*, part ii, § 5[9] and § 6[6].

into an important methodological procedure. To facilitate further discussion, I shall explain this procedure a little more. Consider the following:

(1) "Socrates is wise."

Here the predicate is said to be either 'wise' or 'is wise'. Sometimes 'Wisdom' is taken as the predicate. This comes close to the Nyāya view which regards Wisdom[26] as the qualifier and Socrates as the qualificand in this context. So we can represent this qualificative cognition as

(1′) "(Socrates Wisdom)" or "*Q*(Socrates Wisdom),"

where "(. . .)" or "*Q*(. . .)" is the qualification indicator, and it can be taken as an operator on the two constants.

The usual convention will be to place the qualificand first and the qualifier second. Accordingly, we can present the following analyses:

(2) "He is a king." (2′) "*Q*(The-person-the-speaker-has-in-mind Kingship)."

(3) "A pot." (3′) "*Q*(Pot Pot-ness)."

(4) "A pot is blue." (4′) "*Q*(Pot Blue-color)."

Notice that (3) also forms a part of (4). Thus (4′) can be further analyzed as "*Q*(Pot Pot-ness)" and "*Q*(Blue-color Blue-ness)," which can be combined as

(4″) "*Q*(*Q*(Pot Pot-ness)*Q*(Blue-color Blue-ness))." [27]

Now it becomes clear that Blue-color, although it occurs in the same content, is a qualifier with respect to Pot and a qualificand with respect to Blue-ness. Since the first grand analysis of (4) is given by (4′), the Naiyāyikas call Pot the '*chief* qualificand' (*mukhya-viśeṣya*). (See also § 3.7.)

§ **2.9** The Nyāya holds, as we have seen, that a qualificative cognition can be either true or false. But the Naiyāyikas do not define it by this characteristic. Perhaps they feel that the definiens, viz., the alternative characteristic "true or false," merely gives an "extensional" characterization of the definiendum, namely, as an aggregate of the two different classes, each of which is to be defined in its special way. One may better define a qualificative cognition as an ascertainment of something (the qualificand) as containing such and such features.[28] Such a cognition, however, can also be either true or false.

But one point needs to be stressed. According to the Nyāya a cognition with *dubiety* can also be taken as a qualificative cognition. The usual verbal form of such a dubitant cognition can be given with the help of two incompatible qualifiers as follows: "Perhaps that is a man; perhaps that is a tree." But ordinarily we cannot

[26] I am using capital letters in words like 'Wisdom' in order to show that I am taking them as singular terms or *proper names* purporting to refer to only one object. I am following Strawson in this matter. But I am extending his usage to include words like 'Pot', by which I mean a *proper name* for a pot.

[27] 'Blue-color' names the instance of such a color and may be treated as what Quine calls a 'mass term' (*Word and Object*, pp. 97 f.). And 'Blue-ness' names blue-universal, a generic property shared by all blue patches. Nyāya puts it in the following way: Blue-color *has* Blue-ness (just as a cow *has* cow-ness). (4″) in Sanskrit will be "*nīlatvaviśiṣṭa-nīla-rūpa-vān ghaṭatva-viśiṣṭaḥ ghaṭaḥ.*"

[28] The rigorous Nyāya definition has, however, been given in the following way: "*sāṁsargika-viṣayatā-vattvaṃ viśiṣṭa-jñānatvam*" — roughly, something that has relational *content* is a qualificative cognition.

ascertain such a cognition to be true or false. Nyāya logic, nevertheless, holds that the dichotomy of truth and falsity should exhaust the domain of qualificative cognition. So, to fill the "truth-value gap," the dubitant cognition is ruled as false.[29] Definitions of truth and falsity are also adjusted to cover the cases of dubitant cognition.

A qualificative cognition can be true if and only if[30] it agrees with reality. But the word "reality" is proverbially ambiguous. We shall avoid such words. Following Gaṅgeśa, we can define truth and falsity as follows:

D1. A qualificative cognition is false *iff* the qualifier does not *occur* in, or is not *contained* in, the qualificand; otherwise it is true.[31]

We have already mentioned qualificand and qualifier (see § 2.8) as the constituent elements of a qualificative cognition. In a more thoroughgoing analysis, Nyāya talks of three elements instead of two: the qualificand, the qualifier, and a link or relation connecting the two. These elements are brought under one category, which is technically called *viṣayatā*.[32] Thus, the *viṣayatā* of a given qualificative cognition is a complex composed of three elements which have three different denominations: *viśeṣyatā*, qualificand-ness; *prakāratā*, qualifier-ness; and *saṃsargatā*, relation-ness or, better, relational *viṣayatā*. Obviously, these are convenient abstractions from the corresponding descriptions, the qualificand, the qualifier, and the relational tie. The usual procedure is that if x is described as the qualifier of some cognition, then x is said to have or possess the abstract, qualifier-ness; and so on.

It is to be noted further that Nyāya develops a language which can perhaps be given the appellation of a 'property-location' language (a term which Strawson uses to describe a similar language).[33] The model sentence of such a language contains the introduction of general concepts and "the indication of their incidence." Under this interpretation, the qualifier can be viewed as the *feature-universal* (with due modification of the Strawsonian sense of the term), and the qualificand can be viewed as the *locus* where the qualifier is said to occur. Words like 'locus', 'occurrence', 'location', and 'resident' will be used from now on in a very general sense following the Naiyāyikas, and the meanings of such terms should not be taken to be concerned only with spatial location or physical occurrence or residence. Instead of saying that humanity or man-universal is *instantiated* in a particular man, Nyāya says that the property humanity *occurs in* a man or that a particular man is a *locus* of humanity. The relation of *occurrence* is regarded as a very fundamental concept in Nyāya. We can call it a "primitive" in the construction of Nyāya logic. 'Property' is here used in the broadest sense. Nyāya also asserts that to call something 'property' is not to say that it is real,

[29] Cf. "*tat-prapañco viparyāsaḥ saṃśayo'pi prakīrtitaḥ,*" Viśvanātha, *Bhāṣāpariccheda*, verse 127. Compare also Praśastapāda's division of *jñāna* into *vidyā* and *avidyā*.

[30] I shall abbreviate "if and only if" as *iff* henceforward.

[31] "*Yatra yan nāsti tatra tasya jñānam, tad-abhāva-vati tat-prakārakaṃ vā apramā/ tad-anyatve saty anubhavatvam eva vā pramātvam,*" Gaṅgeśa, *TC*, in *TCM*, Part I, p. 401.

[32] There has been much speculation regarding the ontological status of *viṣayatā* in the later school of Navya-nyāya. I shall discuss the matter in Chapter 7.

[33] Strawson, *Individuals*, p. 203.

because there are fictitious or unexampled (*aprasiddha*) properties,[34] i.e., properties that have no locus to occur in. Thus to say that x is fictitious is to say that nothing possesses x as its property, i.e.,

"$-(\exists y)(x \text{ occurs in } y)$."

In the light of these remarks, the schema for a qualificative cognition, which has a as its qualificand and b as its qualifier and r as the relation connecting them, can be written as "b occurs in a by the relation r" or "a has b through r" or sometimes, in short, "b occurs in a" or "a has b" (when we do not want to specify the relation). Now, a more careful formulation of D1 will be:

D2. A cognition "b occurs in a" is false *iff* b does not occur in a; otherwise it is true,

or, using the notion of relation:

D3. A cognition "b occurs in a by r" is false *iff* b does *not* occur in a by r; otherwise it is true.

This may remind one of Tarski's formulation of the semantic definition of truth.[35] But the difference is also obvious. For one thing, truth and falsity here are properties of the qualificative cognition, while for Tarski truth is a property of a sentence in the object-language. The portion set off by quotation marks here is not to be viewed as the sentence-token by which the cognition is expressed; it is rather a quasi-sentence, or the intensional form of that cognition. It is somewhat like the abstract notion of proposition, which is what "two sentences in different languages must have in common in order to be correct translations each of the other." [36] In this connection one may also be reminded of Aristotle's remark in the *Metaphysics* (1011b26–38): "To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, or of what is not that it is not, is true." Sometimes attempts are made to label the Nyāya concept of truth as what is called "the correspondence theory of truth" in traditional Western philosophy. I have avoided such a procedure since it may obscure the essential features of the Nyāya theory of truth.[37]

The later Naiyāyikas developed the notion of truth and falsity, using the notions of qualifier and qualificand in a more thoroughgoing manner. We have already noted that within the same cognition something can be the qualifier with respect to one thing and at the same time the qualificand with respect to something else. But one thing is certain: a qualifier must have a qualificand, and vice versa. If any qualifier does not occur in the corresponding qualificand, then the cognition is false. Thus we can rephrase D2 as follows:

[34] Such *aprasiddha* terms were always viewed as suspect in a systematic discourse. If they were parts of a sentence dealing with some logical definition or the like, the whole sentence was ruled to be *aprasiddha* by Nyāya. See the Notes to passage 14 of Chapter 14 and to passage 6 of Chapter 16. Similarly, a sentence with an empty term in Western logic has sometimes been supposed to express a statement which has no truth value. See Strawson, *Introduction to Logical Theory*, p. 175.

[35] See Alfred Tarski, "The Semantic Conception of Truth."

[36] Church, *Introduction to Mathematical Logic*, p. 25. (See § 2.5 above.)

[37] For a somewhat different exposition of Gaṅgeśa's definition of truth see Mohanty, pp. 43–47. Incidentally, I must acknowledge that I do not understand the point he wishes to make through his insistence that Gaṅgeśa's concept of truth is a "hybrid" entity, using (as he mentions) a term of Whitehead's.

D4. A cognition c is false *iff* $(\exists x)(\exists y)(x$ "appears" as a qualifier of y in $c \cdot x$ does not occur in $y)$.

Note that we have not applied the adjective 'qualificative' to cognition c here, since in a nonqualificative cognition nothing appears as qualifying anything, and hence it is, by definition, neither true nor false.[38]

§ **2.10** It has been indicated above that ontological ideas of substance and attribute, and grammatical distinctions of substantive and adjective, are to be distinguished from this qualifier-qualificand distinction. Nyāya introduces another pair of terms, viz., *dharma* 'property' and *dharmin* 'property-possessor'. This might be called an ontological distinction corresponding to the epistemological distinction between the qualifier and the qualificand. When we say, "The table has four legs," we can describe, according to Nyāya, the four legs as the qualifier of the table, which is its qualificand in regard to the cognition concerned. Apart from the context of a cognition, we can describe the four legs as the *dharma* or property (using the English term in a very broad sense) of the *dharmin* or locus (literally, property-possessor), the table.

Although all cognitions that have verbalized forms are qualificative, it is to be noted that the qualifier may not always be explicitly mentioned in words in such verbal forms. This is clear in example (3) of § 2.8. The general principle upheld by Nyāya is roughly that anything that appears in a qualificative cognition must appear *as something*, i.e., with some feature (*kiñcit-prakāreṇa*), unless it is appearing only relationally, i.e., as a mere connector. But there are two important exceptions to this rule. A generic property (*jāti*) or an unanalyzable *ordinary* property (*akhaṇḍa upādhi*) can appear as such, i.e., without any further reference to some feature of it in a cognition, when and only when such a property is not mentioned in words in the corresponding verbalized form of such a cognition.[39] Note that usually a generic property or an imposed property (comparable to the universals) is not mentioned in words in ordinary sentences expressing cognitions. (See example (3) of § 2.8.) Thus in "This is a pot" the entity pot appears *as a pot*, i.e., as qualified by pot-ness, a generic property, and thereby pot-ness also appears as an object of that cognition, although it has not been mentioned in its verbal expression. By contrast, when we say in reference to a pot, "This is a substance," the entity pot appears there *as a substance* and not as a pot, i.e., as qualified by substance-ness and not by pot-ness. Properties like pot-ness and substance-ness are not mentioned in words in the verbal expressions, but they are nevertheless held to be the objects of the respective cognitions. Nyāya also states that if in any verbal expression of a cognition such a property as *pot-ness*, which we usually take to be a qualifier, is mentioned in words, it will refer back to another unmentioned qualifier or feature. Thus, if the verbal expression is "This has pot-ness," pot-ness is, here, not only a qualifier but also a qualificand which refers back to an unmentioned qualifier, viz., *ghaṭatvatva* (pot-ness-ness), which is but a convenient

[38] Note the following remark of Gaṅgeśa: "*nirvikalpakañ ca pramāpramābahirbhūtam eva vyavahārānaṅgatvāt avyapadeśya-padena tadupagrahasya nāmajātyādiyojanārahitam api pratyakṣam astīty atra tātparyam*," Gaṅgeśa, *TC*, in *TCM*, Part I, p. 402.

[39] "*Jātyakhaṇḍopādhīnām anullikhyamānānāṃ svarūpato bhānopagamāt.*"

name for a peculiar property cognized to occur only in pot-ness (*ghaṭatva*).[40] This point needs to be stressed, simply because it implies that given a cognition, there is one and only one way of formulating the discursive symbol of it, viz., the sentence in any language. And given the sentence, we can decide how many qualifiers and qualificands are involved in that particular cognition. Thus, a cognition that is expressed in ordinary language, i.e., in the object-language, as "This is a pot" is not strictly identical with another cognition that is expressed as "This has pot-ness," for their interpretations in Nyāya metalanguage will differ; the latter contains an additional qualifier that is lacking in the former.

§ **2.11** A qualificative cognition is always expressible in words. But one must point out that a cognition that an observer will have after listening to and understanding these words or this utterance is not identical, although it may be harmonious, with the cognition which gave rise to the utterance. The situation can be better understood by comparing it with the distinction made in modern linguistics between the observer's viewpoint and the participant's viewpoint, or rather between the speaker's attitude and the hearer's attitude (both being participants). The epistemic event that ensues after the utterance is made is certainly different from the epistemic event that leads to such an utterance. Nyāya calls the former an instance of *śābdabodha*, i.e., a cognition arising from listening to an utterance. Sentences (allowing, however, for one-word sentences) are the units through which successful communication holds between the speaker and the hearer. Nyāya says that there are certain factors that are auxiliary to the understanding of a sentence as a whole, although the sentence is constituted only of words. They are *yogyatā* (semantical competency), *ākāṅkṣā* (syntactical expectancy), *āsatti* (contiguity), and *tātparya* (speaker's intention). I shall only very roughly sketch these concepts. Semantical competency is the relatedness of different entities or concepts expressed by individual word-components of the sentence.[41] Consider the sentence:

(5) "*kuṭhāreṇa vṛkṣaṃ kṛntati*" = "He cuts a tree with an ax."

If we substitute 'butter' for 'an ax', the resulting sentence, though grammatically correct, is nonsensical; i.e., the desired communication fails, because it is apparent that butter cannot be instrumental in the activity of cutting a tree, the activity demanded by such a sentence structure. The desired communication is said to fail here because of the absence of the feature called semantical competency (unless, of course, we are indulging in some wild poetic metaphor). Syntactical expectancy is said to be that feature of the syntax the absence of which may make the juxtaposition of two or more words unintelligible. Thus in (5) if we omit the subject 'he', or if we drop 'with', the resulting expression is unintelligible. The hearer demands such words to make the whole sentence both grammatical and meaningful. A more sophisticated view is that syntactical expectancy is nothing but the necessary order of the phoneme sequence in a sentence that makes it both meaningful and grammatical.[42] Perhaps we can better explain these two related

[40] See in this connection Quine, *From a Logical Point of View*, p. 78.

[41] "*Padārthe tatra tadvattā yogyatā parikīrtitā*," Viśvanātha, *Bhāṣāpariccheda*, verse 83.

[42] Thus compare "*ānupūrvī hy ākāṅkṣā*" ("syntactical expectancy is the sequential arrangement").

concepts by using the notions of meaningfulness and grammaticalness. Consider the following two examples:

(6) "*vahninā siñcati*" = "(He) irrigates (the field) with fire."

(7) "*jalena siñcati*" = "(He) irrigates (the field) with water."

It is argued that sentence (6) lacks *yogyatā*, semantical competency, whereas sentence (7) has it. It may be noted that both (6) and (7) are grammatically acceptable, but while the latter is also semantically acceptable, i.e., meaningful, the former is not. Without risking much, one can say that semantical competency is a property that turns a grammatically acceptable but semantically nonacceptable sentence into a semantically acceptable one. Or, to give examples in an English setting, this is a property that sentences such as

(8) "Colorless green ideas sleep furiously"

and

(9) "Dead linguists smoke buildings"

do not possess.[43]

Almost a similar point can be made with regard to the inconceivable combinations like '*vandhyā-suta*' ('son of a barren woman') or 'the circular square' as opposed to the conceivable combinations like '*śaśa-śṛṅga*' ('the rabbit's horn') or 'the winged horse'. In short, although grammar allows inconceivable combinations, such combinations lack *yogyatā* and hence do not generate any cognitive meaning.

With regard to *ākāṅkṣā* or syntactic expectancy, one might say that it is the syntactic property that an utterance lacks when it is not a grammatically acceptable sentence. Consider the following sentence:

(10) "*ghaṭam ānaya*" = "Bring a pitcher."

This is said to have the property of syntactic expectancy because the verb '*ānaya*' ('Bring') is accompanied by an accusative '*ghaṭam*' ('a pitcher'). Syntactic expectancy is also said to be fulfilled (according to some) because the word-base '*ghaṭa-*' ('pitcher') is associated with the accusative ending '*-am*', which guarantees its grammaticalness. Without this ending, other things remaining the same, the whole utterance would be grammatically unacceptable. The counterexample, which lacks this syntactic property, is

(11) "*ghaṭaḥ karmatvam ānayanam kṛtiḥ*" = "A pitcher being an accusative bringing an effort."

This is simply an ungrammatical combination. Although all the elements that constituted the complete cognitive meaning of the previous utterance, example (10), are present here and even in the same order, it would be difficult to decide whether this combination was meaningful or not. If it is declared meaningless, one has good reason to ask why, unless, of course, we rule that ungrammatical combinations are, in general, not meaningful. From the Nyāya point of view, it will not be improper to say that examples like (11) lack the syntactic property *ākāṅkṣā* and hence do not generate any cognitive meaning.

Āsatti means contiguity in space and time. This criterion demands absence of any unnecessary intervention or interval (temporal when the word-complex is

[43] Noam Chomsky, *Syntactic Structures*, p. 15. H. Putnam, "Dreaming and 'Depth Grammar'," p. 215.

uttered and spatial when it is written) between the word elements whose meanings are to be related among themselves to constitute the meaning of the whole sentence. The counterexample, which is said to lack this property, is sometimes given as

(12) "*girir bhukto vahnimān Devadattaḥ*" = "the hill has eaten has fire Devadatta."

This sounds nonsensical even in Sanskrit, where there is no strict rule about word order. One might make a strained effort to construe this as two sentences by supplying a connective '*ca*' ('and'), viz., "*girir vahnimān*" ("the hill has fire") and "*bhukto Devadattaḥ*" ("Devadatta has eaten"). But the normal feeling is that it fails to generate any cognitive meaning under usual circumstances.

The fourth concept, *tātparya*, is explained in Nyāya as the speaker's intention. This is said to be needed sometimes to clarify certain otherwise ambiguous expressions.

§ **2.12** It will be clear from the foregoing discussion that in the Indian tradition logic and epistemology were always intertwined. The Nyāya school, which is often wrongly described as simply a system of Indian logic, actually developed as a separate philosophical discipline with a particular system of epistemology and ontology. In the new school of this system (called Navya-nyāya) the discussion of *pramāṇa* (and I am roughly translating *pramāṇa-śāstra* as 'epistemology') occupied the central position, and interest in the methods of definition as well as in the exact formulation of philosophical theories increased to a great extent. Navya-nyāya discovered certain tools and technical procedures whereby statements of a particular theory and the exposition of the implicit arguments in the development of that theory could be stated with greater precision, and consequently the ambiguity of ordinary language and the inexactitude in the formulation of a given theory could be better avoided. The influence of this aspect of Navya-nyāya upon other philosophical schools of India can easily be shown. In this respect Navya-nyāya may be said to resemble, at least in spirit, the age of analysis in the Western tradition. In most of the texts since the fourteenth century — texts not only on philosophy but also on rhetoric, poetics, grammar, and law — the authors have used the Navya-nyāya method and style, although they have often completely rejected its philosophical doctrines.

3

THE CONTENT OF COGNITION AND THE MEANING PROBLEM

§ **3.1** Each cognition, by definition, has a *viṣayatā*. I shall abbreviate the expression 'cognition of x' as 'xC', which can be treated as a schema for a singular term or name in the sense that when we substitute a constant a for the variable x we get a name that denotes or refers to a unique entity. When convenient, I shall also abbreviate the expression 'an absence of x' as '$\sim x$', which would also be a schema for a name, in that when a constant is substituted for x we get a name that denotes or purports to denote a unique entity.

I shall describe 'xC' in some contexts as 'a cognition which intentionally refers to x'. It is to be noted that I am using the verb 'refer' in a broad sense. In modern semantics such expressions as "a word refers to an object" are used. But here I shall use 'to denote', 'to designate', or 'to stand for' for such purposes. Thus a name (a singular term or a symbol) will be said to *denote* an object. And a cognition will be said to *refer to* an object or objects, provided that such objects are what the cognition is about.

§ **3.2** Before proceeding further, it may be well to notice a problem that has arisen in modern philosophy concerning the use of the word 'denote'. In the usage of John Stuart Mill [1] and his followers, not only a singular name but also a common or general name is said to denote. But the difference lies in the fact that while the former denotes one thing and only one thing, the latter denotes many things. For instance, the common name 'pot' is said to denote this pot, that pot, a third pot, and so on.

There is some ambiguity in the use of the word 'denote', as P. T. Geach has pointed out,[2] and sometimes it is used in the sense of 'refer to'. The term 'denoting', to quote Geach, "covers up a fundamental confusion, between the relations of a name to the thing named and of a predicate to what it is true of." In the above, I have followed Church,[3] who has used 'denote' to render Frege's '*bedeuten*'.[4] It may be noted here that in natural languages, however, some

[1] John Stuart Mill, *A System of Logic*, book I, chap. ii.

[2] P. T. Geach, *Reference and Generality*, pp. 6, 56.

[3] Alonzo Church, *Introduction to Mathematical Logic*, pp. 3–9.

[4] Cf. Gottlob Frege, "Über Sinn und Bedeutung."

singular terms have no denotation. That is why Quine wants to define a singular term as that which "*purports* to name an object, but is powerless to guarantee that the alleged object be forthcoming."[5] Examples of this are 'Cerberus' and 'Pegasus'. One should have no misgivings over the meaningfulness of such words, for, according to Quine, "to purport to name and fail is already a full share of meaning."[6]

Just as a term, although meaningful, may fail to denote an object, so a cognition, in the Nyāya view, may also fail to guarantee that the *totality of its content* is existent as such in the external world. A cognition of 'a hare's horn' may very well occur in some person, but the real horns of a hare do not exist. Nyāya claims only that there is a real basis out of which such a cognition arises, and admits that the basis may be quite different from what the cognition takes it to be. This problem is eventually connected with the Nyāya theory of erroneous cognition.[7]

§ **3.3** The Sanskrit logicians did not use variable letters like '*x*' and '*y*'. But their use of "dummy singular terms" like '*ghaṭa*' ('pot') sufficed to some extent, as one may see from such expressions as "absence of absence of *ghaṭa* (pot) is just *ghaṭa*." The word '*ghaṭa*' behaves like what is called an "indefinite singular term,"[8] and thus in order to translate the Sanskrit word '*ghaṭaḥ*' into English we should use the indefinite article 'a'. From another point of view, sentences containing such dummy singular terms can be formalized in such a way that we can use the variable letters '*x*', '*y*', etc., or the constants '*a*', '*b*', etc., in place of the dummy terms. In such a formalized language a variable is said to take values, and a constant is treated as a symbol or a singular term having a denotation.[9]

General names used as attributes or predicates present some problem. Sometimes it is said that they do not denote anything but that they may be true of or may apply to many things or even to nothing. Thus 'red' applies to all red things, and 'round-square' applies to nothing. But consider the following sentences:

(1) "An apple is red."
(2) "A mountain is fiery."

These two can very easily be rewritten as

(3) "An apple has red-color."
(4) "A mountain has fire (or, fiery-ness?)."

In English, without any trouble, red-color can be said to qualify some apple. Similarly, perhaps, fiery-ness can be said to qualify some mountain. But one must deplore the roundabout way of talking about the peculiar entity fiery-ness,

[5] W. V. Quine, *Methods of Logic*, p. 197.
[6] *Ibid.*, p. 202.
[7] See §§ 2.4 and 2.9.
[8] W. V. Quine, *Word and Object*, pp. 112–114.
[9] A variable is a symbol whose meaning is like that of a singular name except that the single denotation of a name is replaced by the possibility of various values of the variable. A constant is a singular name with a denotation. I have followed Church in defining these concepts. See his *Introduction to Mathematical Logic*, pp. 3–9.

and one will decide to talk directly of fire present on the mountain. Actually the paradigm case of the Sanskrit propositions (with which Nyāya is chiefly concerned) supports the latter usage. But in this case it would be odd to say in English that fire qualifies some mountain. In other words although 'fire' has the look of a general term, it applies to the object present on the mountain, and not to the mountain itself. The general term 'fiery' can, however, be said to apply to the mountain. But what I have in mind is that terms like 'fire', as used in (4) and (6), do not behave like ordinary general terms. Comparing their syntactic properties with terms like 'red-color' in (3), Nyāya translates (3) and (4) as

(5) "An apple is a locus of red-color."

(6) "A mountain is a locus of fire."

Now, as in the above, general terms like 'fire' used after 'of' can also be said to behave like dummy singular terms in such a context.

Expressions like 'a cognition of pot' can be read as 'a cognition of x, and x = a pot'. And 'an absence of pot', too, can be read as 'an absence of x, and x = a pot'. But to avoid unnecessary complications, I shall use expressions like 'a cognition of pot', 'an absence of pot', and 'a locus of pot' instead of using the extended translations. As far as I can see, these are faithful renderings of the corresponding Sanskrit expressions in the majority of cases. It may also be noted that 'a cognition of x' is itself but a dummy singular term. To put it in another way, expressions like 'a cognition of x' or 'xC' behave somewhat like the "forms" in Church's vocabulary.[10] Church obtains a "form" from a complex singular name by replacing one of the constituents with a variable. In our case, we get 'xC' or '$\sim x$' only from indefinite singular terms which are also complex in character. Forms, like variables, have values. And the value of a form with a variable x is obtained by substituting a constant for x.[11]

Apart from talking about the reference as well as the sense of some expressions (using these terms almost in Frege's manner), I shall also use the verb 'to mean', but this I want to reserve for general use in reference to possible different kinds of meaning.

§ 3.4 Although I shall not develop here the theory of meaning[12] in Nyāya in

[10] *Introduction to Mathematical Logic*, p. 10. Some authors use the term 'function' in such cases, but this may be misleading to some extent (see Church's note 26).

[11] Church also talks about the denotation-value and the sense-value of a *form* (*ibid*., p. 11, note 27); this is not relevant to our purposes here.

[12] Various aspects of the problem of meaning and the theory of language have been discussed by Indian scholars of different disciplines from a very early period. The grammarians, the Mīmāṃsakas, the Ālaṅkārikas or the rhetoricians, the Naiyāyikas, the Buddhists — all have shown interest in one or another aspect of the problem. The literature on the topic is rich and varied. To mention some of the modern works, John Brough has contributed three papers: (a) "Theories of General Linguistics in the Sanskrit Grammarians," 1951; (b) "Audumbarāyaṇa's Theory of Language," 1952; (c) "Some Indian Theories of Meaning," 1953. Gaurinath Sastri, in *The Philosophy of Word and Meaning*, has made a laudable attempt to present the philosophy of Bhartṛhari in a systematic manner. Chapters vi-viii of his book are especially important for those interested in Indian theories of meaning. David S. Ruegg, *Contributions à l'histoire de la philosophie linguistique indienne*, also deserves special mention in this connection. Quite recently

detail, yet in view of the discussion in the *Nañ-vāda* of Raghunātha Śiromaṇi, which we shall be considering in Chapters 15 and 16, I shall outline some of the peculiarities of the Nyāya theory. The Indian theorists are divided into two main groups in giving primacy either to a sentence or to an individual word, as far as the meaning problem is concerned. One group, called *akhaṇḍapakṣa*, claims primacy for the sentence, while the other, called *khaṇḍapakṣa*, regards individual words as autonomous units having isolated meanings and a sentence as a concatenation of word-units. The Nyāya school belongs to the latter group. The difficulty with the *khaṇḍapakṣa* is that an isolated word here is sometimes regarded as having a fixed meaning, i.e., a fixed denotation or a fixed sense. But it is a matter of common experience that in natural languages the import of a sentence is not always understood if we take into account only such *fixed* meanings of the constituent words. This problem may sometimes be connected with the theory of figures of speech like metaphor or zeugma in rhetoric, sometimes with the problem of homonyms in linguistics, and sometimes with the problem of the vagueness and ambiguity of ordinary language. Nyāya states that, to understand a sentence, one needs to understand the individual meanings of the constituent words,[13] and that one understands these meanings from the words themselves through their *vṛtti* or functional relation.[14] The *vṛtti* of a word is the disjunction of the *śakti* relation and the *lakṣaṇā* relation.[15] The *śakti* relation relates a word to its conventional meaning, whereas the *lakṣaṇā* relation relates a word to its extended or metaphorical meanings.

The Nyāya theory here is based on a very simple psychological theory about memory and recollection.[16] When one of the two *relata*, viz., the word, is presented, the other *relatum*, viz., the meaning, is recalled to the mind of the hearer, because such relatedness is acquired fundamentally through the mechanism of something like conditioned reflexes. But when a word is imbedded in a sentence, its meaning depends, in the majority of cases, on certain relations of combinability with other words and on appropriateness to the circumstances. This feature has also been more and more emphasized by those modern Western philosophers who hold that instead of asking for the meaning we should look for the *use* of a word, and that a language is nothing but a set of rules comparable to a set of rules in a game.

Thus, 'blue' (*nīla*) as an isolated word denotes blue-color, but in the expression 'A blue pot' it denotes something that is blue. Nyāya says that the functional relation between the word 'blue' and the color blue in the first case is what is called *śakti* (the conventional function or power of a word). The meaning obtained

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K. Kunjunni Raja, in *Indian Theories of Meaning*, has attempted a comparison of Indian theories with modern Western theories. This book, although sometimes sketchy and unclear, conveys much interesting information about the literature of Indian theories of meaning.

[13] "*Padajanyapadārthasmaraṇaṃ vyāpāraḥ*" (*śābdabodhe*), Viśvanātha, *Siddhāntamuktāvalī*, pp. 291–292.

[14] "*Tatrāpi vṛttyā padajanyatvaṃ bodhyam,*" *ibid.*, p. 292.

[15] "*Vṛttiś ca śaktilakṣaṇānyataraḥ sambandhaḥ,*" *ibid.*, p. 292.

[16] "*Ekasambandhijñānam aparasambandhinaṃ smārayati,*" *ibid.*, p. 292.

through such a relation is called the conventional meaning or express meaning (*śakyārtha* or *vācyārtha*). One can also call it the primary meaning (*mukhyārtha*), for such a meaning is the first recalled when the corresponding word is heard in isolation. But in the second case, the functional relation between the word 'blue' and the object that is blue is called *lakṣaṇā*. The meaning obtained thereby is called *lakṣyārtha*, or a secondary meaning, a metaphoric meaning, or an indicative meaning. For the sake of convenience, I shall call the first functional relation, *śakti*, the 'denotative function', and the second, *lakṣaṇā*, the 'indicative function'. Notice that both the indicative and the denotative functions are really nothing but different relations relating a word to its meaning.

One has to resort to *lakṣaṇā*, the indicative function, when and only when the primary meaning of the word imbedded in a sentence cannot be fitted to the meaning or import of the sentence as a whole. A significant sentence uttered by a speaker is intentional and purposive. If the hearer does not understand the syntactic relation between the words through the ordinary semantic correlation with their primary meanings, he has to look for some implied semantic correlation of some word or words with such meanings as are related in some way or other to their primary meanings. Recourse to this implied semantic correlation becomes obligatory, for otherwise the purpose or the intention of the speaker will not be served.[17]

§ 3.5 It has been remarked by some modern interpreters that Nyāya never distinguishes between the denotation and the sense of an expression.[18] But it seems to me to be highly rewarding to compare and contrast the implicit distinction between what is *śakya* and what is the *śakyatāvacchedaka* of an expression with a somewhat parallel sense-denotation distinction familiar in the West since Frege.[19] The sense of a term denoting an object is, according to Frege, the way in which the object is given by it.[20] This can be explained by the following examples:

(7) "The two expressions 'the morning star' and 'the evening star' have the same denotation."

(8) "The expressions 'the morning star' and 'the evening star' do not have the same sense."

Here (7) holds because of an astronomical fact. But (8) also holds at the same time. This is so because the two expressions, as Frege says, refer to their common denotation in different ways. If we understand the language, we can grasp the sense of the expressions. To apply the Nyāya conceptual scheme to this case, even if the morning star is the *same as* the evening star, the cognition expressed as 'the morning star' and the cognition expressed as 'the evening star' are different in the structure of their *viṣayatās* (the totality of contents). To put it roughly, the two cognitions differ with respect to the structures of their intentional contents. Using the convention of § 2.8, we can represent them as follows:

[17] "*Lakṣaṇā śakyasambandhas tātparyānupapattitaḥ,*" Viśvanātha, *Bhāṣāpariccheda*, verse 82a.

[18] See Mohanty, p. 39.

[19] See note 4 in this chapter.

[20] See Rudolph Carnap, *Meaning and Necessity*, p. 119.

(9) "Q(Star The-property-of-belonging-to-the-evening-time)."

(10) "Q(Star The-property-of-belonging-to-the-morning-time)."

The above speculation also becomes pertinent when we see that Frege identifies a proposition with the meaning of a sentence. But now let us turn to the Nyāya theory of *śakyatāvacchedaka*. The term '*pravṛttinimitta*' was familiar in the traditional school of Nyāya. Literally it means the reason for using a particular word to denote some object. But later on, in Navya-nyāya, this term has been explained as the *śakyatāvacchedaka* 'the limiting property of the denotation' or 'the limitor[21] of the property of being the denotatum (*śakya*)'. Nyāya says:

(11) "A pot is the denotatum or denotation (*śakya*) of the word 'pot' (*ghaṭaḥ ghaṭapadaśakyaḥ*)."

Now to avoid the ambiguity in the expression 'a pot,' one may restate (11), following the Nyāya, as

(12) "The word 'pot' denotes what is delimited by the property pot-ness (*ghaṭapadaṃ ghaṭatvāvacchinne śakyam*)."

Now, given (12), we can describe pot-ness as the delimiting property of what is *śakya*, or the limitor of *the property of being a śakya* (*śakyatāvaccedaka*). Thus *pot-ness* is regarded as the *pravṛttinimitta* of the word 'pot'. One may ask at this point: how does pot-ness fare vis-à-vis the sense (*Sinn*) of the word 'pot'? The expression 'pot-ness' should be taken, according to the Nyāya view, as a name of the essence that makes a pot a pot, i.e., the necessary property which is, for example, instrumental in our recognizing an entity as a pot. One cannot take pot-ness as the sense of the word 'pot', because it is perhaps not legitimate to identify the sense of a term with the essence of its denotatum. (See also the last portion of the Notes to passage 22 of Chapter 16.)

§ **3.6** The term *viṣayatā* is obtained from the term *viṣaya* 'object' by adding the substantive suffix '*-tā*', and it belongs to a group of terms which is most important from the viewpoint of semantical analysis in Navya-nyāya. I shall class these terms, following Ingalls,[22] as 'relational abstracts'. Our talk of a content (*viṣaya*) or content-ness (*viṣayatā*) arises, as we have seen (§ 2.3), always in the context of a cognition or, more generally, in the context of a mental act like *icchā* (desire). Ordinarily, if something is supposed to constitute the intentional content of a cognition, which means that the cognition is *about x*, then *viṣayatā* or content-ness will be the intensional relation relating x to that cognition. The ultimate or primary constituents of the content of a cognition are, according to Nyāya,[23]

[21] See § 9.4.

[22] See Ingalls, *Materials*, pp. 44–46.

[23] Nyāya has sometimes been characterized by its modern interpreters as "realistic." Occasionally doubts are expressed whether that characterization is correct. Let us therefore say that the Nyāya school is realistic from at least two different viewpoints. (a) Nyāya maintains the epistemological thesis that it is possible to have faithful and direct knowledge of the actual world. It also maintains the reality of relation as distinct from the relata in at least some cases, e.g., *samavāya* (inherence) and *saṃyoga* (conjunction). This view can thus be called realism as opposed to subjectivism or idealism. (b) From another point of view, a philosophical theory is called realistic or Platonic if it concedes reality to abstract entities like universals. This is often

always "reals" or existent things. Or, to put it in another way, the content of each cognition is analyzable in such a way that its constituents are identifiable with some entity or other (see § 3.2).

Content-ness as a relational abstract can be described as being resident (*niṣṭha*) in some object x and as being conditioned (*nirūpita*) by a cognition (cf. § 4.3). From this, a converse relation, *viṣayitā*, is also devised; and this relation is described as being resident in a cognition and as being conditioned by some object x. The simplest form of cognition, say a cognition of pot, is described in Navya-nyāya as 'a cognition that conditions (*nirūpayati*), or that has its content-ness resident in, a pot'.

A qualificative cognition is usually said to have a plurality of content-ness. Thus, a cognition whose verbal expression is "This is a blue pot" may be said to have one content-ness in what is indicated by 'this', another content-ness in blue-color, and a third content-ness in pot-ness, for, according to the "property-location" language of Navya-nyāya, "This is a pot" is read as "This has pot-ness" (see § 2.9).

The above qualificative cognition also has another kind of content-ness which may be said to be resident in what is meant by "This is a blue pot." This last kind of content-ness should better be called a "complex" content-ness. If the said cognition is a true one, the complex content-ness in such cases can be said to be resident in the object, which is indicated by 'this' and which has blue-color and which has pot-ness at the same time. Nyāya calls this kind of content-ness of a true cognition a *viśiṣṭa-viṣayatā*, which I shall call content-ness$_1$.

If the cognition is a false one, a problem of how to specify this complex content-ness arises, for it cannot be said to be resident in any object in such cases. This problem may very well remind one of the problem of finding an *explicatum* of the intension of a false statement in modern semantics.[24] Nyāya says that such a complex content-ness of a false cognition is, nevertheless, conditioned (*nirūpita*) by what may be called a function of two or more simple content-nesses, which are, in turn, resident in different objects. Thus, the complex content-ness of a false cognition "This is a blue pot" can be described as one that is conditioned by a content-ness resident in the object indicated by 'this' and by another content-ness in blue-color and by a further content-ness in pot-ness.[25] Nyāya calls this

contrasted with the nominalism and conceptualism of the modern philosophy of mathematics. A realist in modern semantics tries to explain the applicability of a general term by positing the existence of a generic unity, universal. In this context, too, one can say that the earlier Nyāya seemed to subscribe to this view without much reservation. Later, to avoid many logical paradoxes and inconsistencies, this view was modified in many respects. But the reality of a generic property (*jāti*) was accepted in many cases.

Many modern analytic philosophers with positivistic backgrounds regard universals as "the shadows cast by names in a twilight of philosophical confusion." That many universals are just linguistic confusions was perhaps realized by some later Naiyāyikas. Notice that most of the relations in Nyāya are not universals. And their doctrine of *svarūpasambandha* was probably an attempt to get out of the maze of unnecessary universals as independent entities (see §§ 4.8 and 4.9). [24] See Carnap, p. 29.

[25] *Ghaṭatva-niṣṭha-viṣayatā-nirūpita-nīlarūpa-niṣṭha-viṣayatā-nirūpitā idampadārtha-niṣṭha-viṣayatā.*

kind of content-ness a *nirūpya-nirūpakabhāvāpanna-viṣayatā*, which I shall call *content-ness*$_2$. It may be noted that *content-ness*$_2$ can also be said to belong to a qualificative cognition that is true. But a false cognition cannot have *content-ness*$_1$. Thus, *content-ness*$_1$ may also be taken as a differentiating mark of a true cognition.

Without using the term 'content-ness', we can also describe *content-ness*$_2$ of the above cognition by using 'qualifier-ness' and 'qualificand-ness' in the following manner: "The cognition *has* a qualificand-ness in what is denoted by 'this', which qualificand-ness is, in turn, conditioned by a qualifier-ness in blue-color and also conditioned by another qualifier-ness in pot-ness." [26]

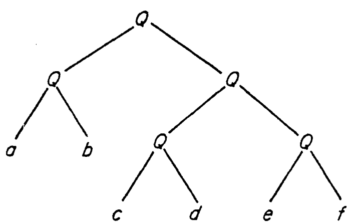
§ **3.7** To illustrate very briefly how a cognition expressed in a sentence of an object-language is described in what may be called the Nyāya metalanguage, let us consider the following:

(13) "*rakta-puṣpavatī latā*" = "The creeper possesses (a) red flower."

Here, broadly speaking, the qualificand is expressed by 'the creeper' and the qualifier by '(a) red flower'. But '(a) red flower' also expresses a composite concept that is analyzable into a flower as the qualificand and red-color as the qualifier. Nyāya goes even further and analyzes the concept expressed by 'the flower' (or 'the creeper') into a flower-individual (or a creeper-individual) as the qualificand and the generic property flower-ness (or creeper-ness), which is very roughly equivalent to flower-universal (or creeper-universal), as the qualifier. Using the notation '$Q(xy)$' for 'x qualified by y', the letter x expressing the qualificand and the letter y, the qualifier, the structural analysis of (13) can be given as

(14) "$Q(Q(ab)Q(Q(cd)Q(ef)))$"

where 'a', 'b', 'c', 'd', 'e', and 'f' express, respectively, the creeper, creeper-ness, the flower, flower-ness, red-color, and red-ness, i.e., red-universal.[27] (More precisely, perhaps, one might say that 'a', 'b', etc. express, respectively, the content-ness in the creeper, the content-ness in creeper-ness, and so on.) One might also represent the structure of (13) diagrammatically as follows:



[26] *Ghaṭatva-niṣṭha-prakāratā-nirūpitā nīlarūpa-niṣṭha-prakāratā nirūpitā ca yā idampadārtha-niṣṭha-viśeṣyatā tannirūpaka-jñānam.*

[27] I offer this symbolic translation instead of the rather ghastly-looking transliteration of the Sanskrit expression: "*raktatva-viśiṣṭaḥ yaḥ raktaḥ tad-viśiṣṭaṃ yat puṣpatva-viśiṣṭa-puṣpaṃ tat-prakārakaṃ latātva-viśiṣṭa-latā-mukhya-viśeṣyakaṃ jñānam.*" More precisely, perhaps, it would be "*raktatva-niṣṭha-viṣayatā-viśiṣṭā yā rakta-(niṣṭha)-viṣayatā* . . ."

It may be noted that (14) can be obtained by manipulating symbols and using the principle of substitution of elementary logic from the initial formula:[28]

(15) "$Q(xy)$."

Now let us consider a false cognition expressed as

(16) "*hrado vahnimān*" = "The lake has fire."

Here we have to speak in terms of content-ness$_2$ and not content-ness$_1$. The component elements of content-ness$_2$ combine themselves with the help of the relation of conditioning (*nirūpakatā*). Thus one might express the analytical structure here with the predicate 'conditioned by'. Using the notation '$C(xy)$' for 'x conditioned by y', (16) can be described as

(17) "$C(C(ab)C(cd))$."

(Here 'a', 'b', 'c', and 'd' express, respectively, the content-ness in the lake, the content-ness in lake-ness, the content-ness in fire, and the content-ness in fire-ness.)[29] Note also that the structure of the false cognition when we mistake a rope for a snake can be described in a similar way, i.e., as

(18) "$C(ab)$"

where 'a' and 'b' express respectively the object presented (*purovarttin*), i.e., the rope, and snake-ness, i.e., snake-universal.

There has been much speculation about the ontological status of the relational abstract content-ness among the later exponents of Navya-nyāya. I shall postpone consideration of their remarks until Chapter 7, for I must first discuss the Nyāya notion of *svarūpa-sambandha*.

It might be relevant here to note that, according to Nyāya, any significant part of a sound sequence is a word (*pada*), and that the simplest type may even be a suffix or prefix or what Edward Sapir has called a *grammatical element*[30] (compare "*śaktaṃ padam*").[31] Worries about the clear formulation of the notion of a word are well known in modern linguistics. If the linguists' morphemes are defined as classes of minimal meaning-bearing units, e.g., 'think', 'of', 'un-', '-ing', '-s', then the Nyāya concept of word (*pada*) will be their nearest analogue.[32] For contrast, one may note that the expression "unthinkable" (which Sapir and others want to take "as an integral whole") will be described by the Naiyāyikas as a *function* of three words, e.g., 'un-', 'think', and '-able'. The feature of dependency of the first and the last upon the second is what Nyāya calls 'syntactical expectancy' or *ākāṅkṣā* (see § 2.11).

[28] First obtain "$Q(Q(cd)Q(ef))$" from "$Q(uv)$" by substituting "$Q(cd)$" for 'u' and "$Q(ef)$" for 'v', and then obtain (14) from "$Q(xy)$" by substituting "$Q(ab)$" for 'x' and "$Q(Q(cd)Q(ef))$" for 'y'.

[29] *Vahnitva(niṣṭha)viṣayatā-nirūpita-vahni(niṣṭha)-viṣayatā-nirūpitā yā hradatva(niṣṭha)-viṣayatā-nirūpita-hrada-viṣayatā tannirūpakaṃ jñānam.*

[30] Edward Sapir, *Language*, pp. 26–33.

[31] Annambhaṭṭa, *Tarkasaṃgraha*, in A. Foucher, *Le Compendium des topiques d'Annambhaṭṭa*, p. 152.

[32] For contrast, one may refer to Zellig S. Harris' notion of morpheme alternants in *Methods in Structural Linguistics*, § 13.

4

ON RELATION

§ **4.1** In Navya-nyāya the concept of relation (*sambandha*)[1] plays an important part in the structural analysis of sentences and cognitions. The Naiyāyikas consider the world to consist of many discrete individuals, which are real and which may be known. They also maintain that anything in this world of individuals may be taken as related to anything (same or different), no matter how involved, indirect, or strange the relation may turn out to be. It is the task of the logical analyst to specify such relations whenever a sentence or a cognition involving a relation presents a problem.

In modern Western logic general terms like 'man' and 'red' are sometimes called absolute general terms in order that they may be distinguished from terms like 'father of', 'opponent of', and 'cause of', which are called relative general terms. A term of the former group is true of objects x, y, z, and so on, whereas a term of the latter group is true of objects in pairs, i.e., true of x with respect to some object z (same or different) and of y with respect to some object w.[2]

§ **4.2** As a general rule, every relation can be said to have a "direction," such that it may be taken as pointing from one relatum to the other, but when we express a relation simply as a relation between x and y, we do not specify the "direction" involved; that is, we do not specify whether it is (a) a relation of x to y or (b) a relation of y to x. It is evident that the relation involved in (a) is not in general the same as that involved in (b). Hence, to express a relation adequately, it is necessary to specify its so-called "direction." For that purpose Nyāya draws a distinction between the two relata, so that whenever specific descriptions of the two relata are given, one can easily identify the relation concerned. In other words, to give the condition for the identification of a relation, we should not only mention the two relata but also indicate the "way" in which

[1] The Naiyāyikas have been laughed at for their predilection for *sambandha*. In a satirical verse they are called *Sambandhins:*

Bhāvādabhāvād yadi nātiriktaḥ sambandhibhiḥ svīkriyate padārthaḥ
Janyāvināśi pratiyogiśūnyam Śrīlakṣmaṇakṣauṇīpater yaśaḥ kim.

This verse is evidently by a Vedāntin of Bengal. The term *sambandhin* means 'possessing relation(s)', but it is also used as a term of insult in Bengal. From being applied to the brother of one's wife, it comes in slang to be applied to any man of obnoxious habits.

[2] See W. V. Quine, *Word and Object*, p. 105.

they are related. To do so, the Naiyāyikas follow this procedure. If a relation is described as "the relation of x to y," the relatum x is called the *pratiyogin* (adjunct) and the relatum y is called the *anuyogin* (subjunct) of the relation in question. In ordinary Sanskrit, the genitive case ending usually marks off the adjunct, and the locative case ending the subjunct.

§ 4.3 Let us consider the following matrices or open sentences:[3]

(1) x is a man.

(2) x is the father of y.

(3) x opposes y.

(4) x causes y.

The Naiyāyikas used an intensional language[4] and, in doing so, exploited the power of abstraction of the Sanskrit language in which they wrote.[5] Moreover, they tended, as we have already noted, to speak in terms of *dharma* (property) and *dharmin* (property-possessor or locus of property). Besides the *dharma-dharmin* concept (property-location concept), they also sometimes used a broader pair of concepts, i.e., *sambandha* (relation) and *sambandhin* (relatum). Thus in Nyāya language the locution ". . . is a man" will denote an abstract property that is regarded as residing in or occurring in some locus or loci. These loci are simply the values of the variable x in (1). Moreover, as we have seen, the Naiyāyikas did not deal directly with sentences or propositions as such. Rather, they would reduce a sentence expressing a cognition to a composite term or terms using the notions of occurrence and locus. Hence, according to their convention, (1) will be reduced to what I shall call an "ascriptive" expression, e.g.,

(5) Humanity (occurs) in x

or

(6) Humanity in x.

The difficulty with (6) is that it does not contain an assertion. The common opinion that making a judgment consists in combining (or separating, as in negative judgments) the two different data of a presentation has not always been maintained by philosophers. The Nyāya probably held that in a declarative sentence what we assert or affirm is a single object. Thus, we may translate the categorical sentence "John is a man" into the existential sentence[6] "There is a

[3] For a definition of "open sentence," see Quine, *Methods of Logic*, pp. 90–92.

[4] See I. M. Bocheński, *Formale Logik*, p. 517. See also Matilal, "The Intensional Character of *Lakṣaṇa* and *Saṃkara*," *Indo-Iranian Journal*, 8 (1964–65), 85–95.

[5] Ingalls, "The Comparison of Indian and Western Philosophy," *Journal of Oriental Research* (Madras), 22 (1954), 1–11.

[6] Translation of categoricals into existentials is reminiscent of a similar method used by Franz Brentano in "Presentation and Judgment." His scheme was as follows:

A. All men are mortal. — There is no immortal man.

E. Some men are sick. — There is a sick man.

I. No stone is living. — There is no living stone.

O. Some men are not learned. — There is a non-learned man.

But Brentano did not interpret existentials like "A exists" as a judgment about A and existence. According to him, "A exists" means that we affirm A. And similarly "A does not exist" means that we deny A. The Nyāya method of reduction is, however, different from this, as I have noted above.

locus, called John, of humanity." But at the next step, following the Nyāya, we get rid of all reference to existence and translate the existential into an "ascriptive" like "Humanity in John." (See also § 11.10.)

On the analogy of (6), (2) through (4) can also be reduced to ascriptive expressions. That is, locutions like " — is the father of . . ." can also be thought to refer to some abstract relations residing in some locus and, at the same time, conditioned or ascertained (*nirūpita*) by some entity. Such relations are called 'the relation of fatherhood' (*pitṛtva*), 'the relation of opponency' (*pratibandhakatā*), 'the relation of being the cause' (*kāraṇatā*), 'the relation of concurrence' (*sāmānādhikaraṇya*), etc. Although they are called relations, they are nevertheless abstractions from the corresponding relative general terms like 'father'. Accordingly, it will be convenient to call them 'relational abstracts'.[7] We translate (2) through (4) as follows:

(7) Fatherhood resident in x and conditioned by y.

(8) Opponency resident in x and conditioned by y.

(9) Causeness resident in x and conditioned by y.

It is evident from the structure of these expressions that we can use a relational variable[8] in the place of the relations (or relational abstracts) and formalize this class of expressions as

(10) The relation ϕ resident in x and conditioned by y.

Instead of using the concept of residence and conditioner (*āśraya* and *nirūpaka*) we can use the concept of adjunct and subjunct (*pratiyogin* and *anuyogin*) as developed in § 4.2. Thus we can rephrase (10) as

(11) The relation ϕ having x as its subjunct and y as its adjunct.

Note that the concept of locus is assimilated into that of subjunct (*anuyogin*) and the concept of conditioner (*nirūpaka*) into that of adjunct (*pratiyogin*).

One important point about relational abstracts is that, contrary to what may be expected, they were not treated in Navya-nyāya as universals (in the sense of repeatable forms of an entity). Rather, they were taken as nonrepeatable particulars peculiar to each occurrence. Such particularization of the abstracts was effected by the specification, in each occasion, of their loci and conditioners (*āśraya* and *nirūpaka*), or, what amounts to the same thing, of their subjuncts and adjuncts (*anuyogin* and *pratiyogin*). In this way we shall eventually arrive at the identity condition of each relation (see § 8.4).

On the other hand, those nonrelational abstracts like humanity and cow-ness that could be construed under the Nyāya principle as *jāti* or generic properties were regarded as one and unchangeable, and in that respect they were on a par with the universals of European philosophy. Only those nonrelational abstracts that were construed as *upādhi* or imposed properties (because the Nyāya condition for a *jāti* was much stricter in the latter school — see § 4.9, note 32) were particularized after the fashion of the relational abstracts.

We can explain our point in another way. Let us call a term an 'adjective' if

[7] This convenient term was first used in this sense by Ingalls in *Materials*.

[8] By 'relational variable' I mean the variable that ranges over the domain of relations or relational abstracts as individuals.

it is possible to abstract a property or *dharma* from it by the usual substantive suffixes '*-tva*' or '*-tā*' ('-ness', '-ity') or by using such phrases as 'the property of being such and such'. Thus even terms like 'man' or 'pot' will be called adjectives under this convention. Terms like 'brother', 'cause', and 'locus' are also to be called adjectives, but if we compare their roles in such expressions as "x is the cause of y" with the roles of the terms of the former class (e.g., 'man') in expressions like "x is a man," we may call them 'relational adjectives' or 'transitive adjectives'.[9] It then becomes clear that the Naiyāyikas arrived at their relations or relational abstracts by abstracting properties from such so-called 'relative adjectives'. An analysis of this procedure also reveals that such relational abstracts can always be treated as properties (used in the widest sense of the term and used as a translation of the term *dharma* in Sanskrit), and that one of the two relata of such a relation (or, relational abstract) must be its locus or substratum, viz., where it is said to reside or occur. Just as from "x is a man" we can assert that humanity occurs in x, so from "x is the brother of y" we can assert that the relation of brotherhood as *conditioned* by y occurs in x. Or, to use the adjunct-subjunct concept, we can say "the relation of brotherhood having y as its adjunct occurs in the subjunct x." Thus, the function of the adjunct here is so to specify the relational abstract that it can be treated as a nonrelational or ordinary property like humanity. Accordingly, 'fatherhood as conditioned by Rāma' is said to occur in Daśaratha (*Rāma-nirūpita-pitṛtvam Daśaratha-vṛtti*), and 'inherence as conditioned by color' is said to occur in the first three substances, i.e., earth, water, and fire, which have color (*rūpa-nirūpita-samavāyo dravyādi-vṛttiḥ*). Note that since relations are mostly particulars, fatherhood specified by Rāma and Daśaratha as adjunct and subjunct is regarded by Nyāya as distinct from fatherhood specified by John and Joseph as adjunct and subjunct.[10]

§ 4.4 We shall now attempt to formulate a general definition of relation

[9] I have borrowed this phrase from W. E. Johnson, *Logic*, part I, chap. xiii, p. 263. His remark on such types of "adjectives" may be of some interest in the present context: "We may characterize a certain child by the adjective 'liking a certain book,' or a certain book by the adjective 'pleasing a certain child.' These adjectives predicated respectively of the child and of the book are complex; and when we take the substantival reference out of this complex, there remain the terms 'liking' or 'pleasing.' Such terms do not function as completed adjectives and will be called relative adjectives." He also called them "transitive adjectives." Although there is a superficial resemblance between our present scheme of relation and Johnson's scheme described above, the difference should not be overlooked. First, we are talking only of dyadic relations. Second, we are using the term 'adjective' in a much broader sense; ordinary noun phrases, for instance, are included in our domain of adjective. Third, from relational adjectives we are deriving corresponding relational abstracts, and are actually calling them 'relation' proper.

[10] There is good reason to emphasize this point. In ordinary language such relations are treated as universals. Even Nyāya would agree to this. But not so in the strict language of Nyāya. By demanding that subjunct and adjunct be mentioned in order fully to understand a relation, the Naiyāyikas actually imply that such relations are so many particulars. Thus they also talk about the defect of *ānantya* (innumerableness) in the context of a *svarūpa* relation. The *samavāya* (inherence) relation is, however, construed as a universal.

following the Nyāya tradition. The simplest definition, and the one with which a Nyāya teacher usually begins, runs as follows:

D1. *x* is a relation *iff* *x* governs a qualificative cognition (*viśiṣṭa-dhī-niyāmakatvaṃ sambandhatvam*).

The content of a qualificative cognition, as we have seen in Chapters 1 and 2 (especially § 2.7), can be expressed in the form: '*a* as qualified by *b*'. If it is found that something is cognized as qualified by some other entity, or, in other words, if in a cognition some entity appears as qualified by any other entity, then the natural conclusion will be that one is related to the other. Thus a relation accounts for their being so cognized, and hence a relation can be said to govern such a qualificative cognition. This elementary definition of relation seems to be tacitly assumed throughout Navya-nyāya literature.[11]

But this elementary definition becomes inadequate when examined with care. In a qualificative cognition one element is known as the qualifier (*viśeṣaṇa*), another as the qualificand (*viśeṣya*), and there is also a third element that is supposed to join them. This third element is called *saṃsarga*, literally, 'connection' or 'tie' or 'relation'. Speaking with care, one must say that in a qualificative cognition the governing factors are all three elements considered jointly, for they are all interdependent concepts. The concept of a qualifier, for example, presupposes a qualificand as well as a qualification (i.e., *vaiśiṣṭya*, which we shall eventually call 'relation'). Furthermore, we have used the term 'governs' in our definition, which at best is ambiguous. 'Government' or '*niyama*' needs further clarification. Raghunātha suggests that we can explain the concept of relation even without using this concept of *niyama*. Thus he remarks, "*darśitaṃ ca niyamāghaṭitam api sambandhatvam*."[12] So Jagadīśa, in commenting on this line of Raghunātha, improves upon the simple definition as follows:[13]

D2. *x* is a relation *iff* *x* is the object of a qualificative cognition and at the same time is neither a qualifier nor a qualificand.

Such a definition can be taken as valid for practical purposes, although it reveals a fault of circularity (*ātmāśraya*) when subjected to critical analysis. A qualificative cognition itself cannot be explained without recourse to the notion of a relation or qualification (*vaiśiṣṭya*).

Gadādhara follows Raghunātha more closely in attacking the ambiguity of the expression 'governing' (*niyāmaka*). A 'governing' factor, he shows, cannot be explained as a causal factor (*janakatā*), for in that case the causing of a cognition of the qualificative type would not be possible for a relation that is unamenable to sense perception.[14] If such relations are excluded, the definition will be too narrow (*avyāpta*). Moreover, the concept of a cause is itself complex, and there-

[11] Cf. "*viśiṣṭa-pratyaya-janana-yogyatāliṅgita-svarūpasya sambandhatvād ity arthaḥ*," *TCA*, p. 714; "*viśiṣṭa dhī-niyāmakasyaiva tathātvāt*," *TCDJ*, p. 252.

[12] *TCDJ*, p. 256.

[13] "*Viśeṣya-viśeṣaṇatvānya-viśiṣṭa-dhī-viṣayatvam eva sambandhatvam iti bhāvaḥ*," *TCDJ*, p. 256.

[14] "*Na tu tad-viśiṣṭa-buddhi-niyāmakatvam, atīndriya-sambandhe janakatva-rūpa-niyāmakatvā-sambhavāt*," *TCDG*, p. 474.

fore also involves some ambiguity since 'cause' may mean either actual cause (*phalopadhāyaka*) or potential cause (*svarūpayogya*). On the other hand, if 'governing a cognition' is explained as 'being the object of a cognition', the said ambiguity can be avoided. Thus Gadādhara suggests, hypothetically, the following revision:[15]

D3. x is a relation of y *iff* x is the object of the cognition of something z as qualified by y, and at the same time x is not z. (*Literally*, relation-hood with respect to y is that content-ness of a cognition which is conditioned by the qualifier-ness in y and at the same time is different from the qualificand-ness of that cognition.)

A difficulty still arises in the case of erroneous cognitions. A patch of color that actually inheres in a substance according to Nyāya may conceivably be erroneously thought to be *in conjunction* with some substance. For example, I can have a cognition that the pot has blue color by the relation of conjunction. But although such a conjunction becomes an object of the erroneous cognition, it should not be mistaken as a relation actually belonging to that patch of color; and yet it would be so if one followed D3. One might try to avoid the difficulty by saying that a conjunction, although it is not a relation of color in the given instance, is still a relation (relating two substances, for example, pot and ground) and hence belongs to the domain of our definiendum. But that path of escape has no appeal for the Naiyāyikas. Nyāya demands that the definiendum not include a nonentity. Here our definiens does not apply to simple conjunction but to the conjunction of a patch of color, and that is an unexampled (*aprasiddha*) term and hence refers to a nonentity (see § 11.8 and also § 2.9).

We can meet this objection squarely by inserting 'valid cognition' (*pramā*) in place of simple 'cognition' in D3. But we are still in a position which is vulnerable to the charge of circularity (see Chapter 10). The notion of a valid cognition is to be explained, in turn, only with the help of the notion of relation.[16]

Gadādhara concludes his discussion with two alternative suggestions,[17] which I shall interpret with the notations of the class logic:

D4 (1). ϕ is a relation of x *iff* $\phi \in \hat{z}(x$ is the adjunct of $z)$. (*Literally*, relation-hood with respect to x is a specific type of property of having x as its adjunct.)

D4 (2). ϕ is a relation in y *iff* $\phi \in \hat{z}(y$ is the subjunct of $z)$. (*Literally*, relation-hood in y is a specific type of property having y as its subjunct.)

Here the concept of relation is defined with the help of the concept of adjunct or subjunct. The obvious suggestion is that adjunct-hood (the concept of adjunct)

[15] "... *viśeṣyatānya-tat-prakāratā-nirūpita-viṣayatāyāḥ vivakṣaṇīyatayā* . . . ," *TCDG*, pp. 474–475.

[16] "*Evam api saṃyogādinā dravyatvādi-bhrama-viṣayatām ādāya tasyāpi tat-sambandhatvāpātāt/ na ca viṣayatāyāṃ pramā-pratiyogikatva-niveśān nāyam atiprasaṅga iti vācyam, pramātvasya tat-sambandhānuyogi-viśeṣyakatvāvacchinna-tat-prakārakatva-rūpatayā sambandha-ghaṭitatvāt,*" *TCDG*, p. 475.

[17] "*Tat-pratiyogikatva-viśeṣa eva tat-sambandhatvam,*" *TCDG*, p. 474; "*evaṃ tad-anuyogikatva-viśeṣa eva tatra sambandhatvam iti bhāvaḥ,*" *TCDG*, p. 475.

or subjunct-hood (the concept of subjunct) may be construed as more fundamental concepts.[18] Thus, in a recent work the following specific definition has been suggested:[19]

D5. A relation is that which determines or conditions an adjunct-hood *a* and a subjunct-hood *b* such that *a* and *b* are of specific type and also that one of them delimits the other.

Note that here also we use two predicates (relative terms), 'conditions' (or 'determines') and 'delimits'; evidently this definition presupposes that those two predicates are more fundamental and can tentatively be understood without prior reference to relation as such. If this seems odd, Nyāya will say that this trouble faces everyone who wants to define such fundamental concepts flawlessly. To put it in another way, we can start with the notions of adjunct and subjunct as "primitives" and then construct the definition of relation using expressions like "*a* conditions *b*" and "*a* delimits *b*" as starting formulas. That is what is implied by D5 above.

§ 4.5 Navya-nyāya concentrates its attention on four types of relation: (1) *saṃyoga* (conjunction), (2) *samavāya* (inherence), (3) *svarūpa* or *viśeṣaṇatā*, (4) *tādātmya* (identity) or *abheda* (nondifference).

§ 4.6 *Saṃyoga* or conjunction is a well known and the least doubted concept. There may be good reasons for criticizing the *svarūpa* relation as a pseudo-relation and censuring *samavāya* or inherence as something unintelligible, but *saṃyoga* is a very familiar notion. By *saṃyoga* the Nyāya means the direct contact of two "embodied" objects of any magnitude from the atomic to the ubiquitous.

The word "embodied" needs some explanation. The Nyāya calls conjunction a quality (*guṇa*), and a quality, by definition, can occur only in what they call a substance (*dravya*). A substance is defined as that which can be the locus of a *guṇa*. Thus it can be asserted that for each thing *x*, if *x* is a locus (or more generally, a relatum) of conjunction, then *x* must be a substance. But actually it is found that not only this conditional but also the corresponding bi-conditional is true under the Nyāya theory, viz.,

"For everything *x*, *x* is a relatum of conjunction *iff* *x* is a substance."

Now to understand more clearly what Nyāya means by substance, I submit the following considerations. If anything is a substance under the Nyāya view, then it necessarily has a magnitude or size (*parimāṇa*), i.e., it must be either atomic or medium-sized (*madhyama*) or ubiquitous. Not only that, a substance must also be countable by numbers and must also have numerical difference or distinctness from other things. To put it in the traditional Nyāya terms, a substance must always have (or, must have the potentiality to have)[20] the following

[18] Thus Raghunātha actually thinks that adjunct-hood and similar properties are to be construed as separate entities.

[19] "*Sambandhatvaṃ ca parasparāvacchedyāvacchedakabhāvāpanna-vilakṣaṇa-pratiyogy-anuyogitā-nirūpakatvam,*' Anantakumara Bhattacharyya, *Vimarśinī*, p. 3.

[20] This allowance is to be made because of the odd Nyāya view that at the very first moment of its production (*utpattikṣaṇa*) a substance (say, a pot) remains untouched by any *guṇa* (quality) or *kriyā* (motion).

qualities: *saṃkhyā* (countability by numbers), *parimāṇa* (a magnitude of any kind), *pṛthaktva* (numerical difference or distinctness), *saṃyoga* (conjunction), and *vibhāga* (disjunction). Thus, by an embodied object I mean a substance that possesses at the same time the above qualities. Thus not only the well-known bodily contact of a pot and the ground (*ghaṭa-bhūtala-saṃyoga*) but also the contact of the atomic mind with the ubiquitous self or soul (*ātma-manaḥ-saṃyoga*) and the contact of the medium-sized pot with the ubiquitous sky (*ghaṭākāśa-saṃyoga*) are cited as examples of conjunction in Nyāya.

Saṃyoga or conjunction is generally conceived to be produced through some motion (*kriyā*) of one relatum or of both the relata, and hence presupposes a prior state of disconnection (*aprāpti*) of the relata.[21] Certain types of conjunction are, however, thought to be produced not directly by a motion but by another conjunction (*saṃyogaja-saṃyoga*); e.g., the contact of the book and the body of Devadatta is due to the contact of the book and Devadatta's hand — a part of the body.

But conjunction, as the Naiyāyikas conceived it, presents some obvious difficulties. As defined above, it cannot be an uncaused event. In other words, there is no conjunction which is not produced. But the Naiyāyikas do talk about conjunction between two eternal (*nitya*) entities, e.g., atoms on the one hand and physical space or sky (*gagana*) on the other. This situation seems to have troubled Praśastapāda, who asserted that there cannot be any uncaused conjunction since Kaṇāda did not mention it (cf. "*nāsty ajaḥ saṃyogo nitya-parimaṇḍala-vat pṛthag anabhidhānāt,*" *NK*, p. 140). Śrīdhara remarked on this that uncaused conjunction is an impossibility like a sky-flower (cf. "*ajaḥ saṃyogo nāsti kha-puṣpa-vat,*" *NK*, p. 149). Praśastapāda argued that conjunction of the atoms with the ubiquitous entities like physical space (*ākāśa*) is due to the movement on the part of the atoms, i.e., it is produced by the movement of one of the relata, e.g., atoms.[22] And he rejected the notion that there can be conjunction between two ubiquitous entities because, according to him, two ubiquitous entities do not satisfy the prerequisites of a conjunction relation. The prerequisite for conjunction, he said, is that at least one of the two relata must be able either to move about or to occur in some locus without depending upon the other.[23] The condition is technically called '*yuta-siddhi*'. This characteristic of conjunction sharply distinguishes it from inherence, because inherence, according to Nyāya, is supposed to be eternal.

§ 4.7 The relation of *samavāya* or inherence has been accepted explicitly in the traditional school of Nyāya as a separate category (*padārtha*) — a peculiar instance of construing a relation as a separate category. It has been described as a relation connecting the whole (*avayavin*) with the parts (*avayava*), *guṇa* (quality) and *karma* (action or motion) with their respective substances, the *antya-viśeṣa*

[21] Cf. "*Aprāptayos tu yā prāptiḥ saiva saṃyoga īritaḥ,*" Viśvanātha, *Bhāṣāpariccheda*, verse 115a.

[22] "*Paramāṇubhir ākāśādīnāṃ pradeśavṛttir anyatarakarmajaḥ saṃyogaḥ,*" Praśastapāda, *NK*, p. 141.

[23] "*Vibhūnāṃ tu parasparataḥ saṃyogo nāsti, yutasiddhy-abhāvāt/ sā punar dvayor anyatarasya vā pṛthag-gatimattvam pṛthag-āśrayāśrayitvaṃ ceti,*" *ibid.*

with the eternal substances, and the *jāti* or generic property with its locus. It has been conceived as a permanent relation in the sense that it connects the adjunct to the subjunct in such a way that the adjunct can never occur or exist as separated from the subjunct.[24] It may be noted in this connection that the subjunct of an inherence relation can, however, continue to exist even when the adjunct ceases to exist, i.e., ceases to occur in the subjunct by inherence. This fact has nothing to do with the supposed permanence of the relation of inherence. Thus we see that the motion or movement (*kriyā*) of a body is said to inhere in that body, and when the body is at rest, the motion being destroyed, the subjunct, body, continues to exist even without the adjunct, motion. The converse is not true. The adjunct of an inherence relation cannot continue to be an entity when the subjunct is destroyed. Moreover, Nyāya posits that the subjunct of an inherence relation, e.g., a substance, can conceivably exist even without the adjunct, say, a particular color. But the opposite is not true. A patch of color cannot conceivably exist without occurring in a substance. It is in this sense that inherence should be regarded as permanent (*nitya* or *ayutasiddha*).

The doctrine of *samavāya* is connected with the metaphysical background of the traditional Nyāya-Vaiśeṣika school. The Nyāya-Vaiśeṣika system started with the fundamental assumption that properties like *guṇa* and *karma* inhere in their locus, i.e., the substance. Then in the next step by what we may call hypostatic abstraction the relation of *samavāya* was construed as another category (*padārtha*). This step was strengthened by other ontological commitments of the school — the doctrine of *jāti* or generic property as distinct from its manifestations (*vyakti*), the doctrine of *avayavin* or the whole as distinct from the mere integration of the constituent parts, and the doctrine of *antya-viśeṣa* as the ultimate differentia of the eternal substances (*nitya-dravya*), such as atoms. The relation connecting each of these entities to its locus was well accounted for by the postulate of *samavāya*, since all of them obviously shared the common character of being permanently (in the specific sense of the word indicated above) related to the locus.

But the question may arise here regarding the relation connecting *samavāya* itself to its locus. How is *samavāya* or inherence, which is a separate entity itself, connected with its locus? To avoid a possible infinite regress, a very simple answer was given: *samavāya* relates *itself* to its locus (i.e., it is *svavṛtti*).[25] This evidently amounts to saying that it is related to its locus by a *svarūpa* relation. It may be quite possible that the problem of relating absence (*abhāva*) to its locus

[24] Kaṇāda gives what seems to be intended as a definition of *samavāya* in *Vaiśeṣika-sūtra*, VII, 2, 26. Praśastapāda defines it more clearly. A good survey of the Nyāya-Vaiśeṣika literature on the problem of *samavāya* can be found in G. Patti, *Der Samavāya im Nyāya-Vaiçeśika-system.* In *Siddhāntamuktāvalī*, Viśvanātha, following the new school of Nyāya, glosses: "*samavāyatvaṃ nitya-sambandhatvam*" (under verse 11). Kalipada Tarkacharyya also remarks in his *Sūktidīpikā*, p. 37, "*vastutas tu nityasambandhaḥ samavāyaḥ, ayuta-siddhyādikaṃ tu svarūpaparicāyakamātram.*"

[25] Compare also the answer given by Praśastapāda to this question: "*tādātmyāt*" (*NK*, p. 328). Śrīdhara glosses it as "*svata eva ayaṃ vṛttir iti*" (*NK*, p. 329). Vallabha explains the idea as follows: "*samavāye tu viśeṣaṇa-viśeṣya-bhāvaḥ*" (*Nyāyalīlāvatī*, p. 722).

was also considered together with this problem of relating *samavāya* to its locus.[26] It may be noted, however, that with the advent of the *svarūpa* relation in this way, the position of *samavāya* itself in the Nyāya system was left dwindling. We shall discuss that in connection with the *svarūpa* relation.

§ **4.8** There is a very familiar way to criticize the Nyāya concept of relation. Something analogous to Bradley's argument[27] can be directed against it. This well-known critique (famous also in the idealistic tradition of India, e.g., in Buddhism and Vedanta) has sometimes been called the paradox of relation. The paradox may be briefly stated in the following manner. When we talk of x as being related to y by the relation r, we have first to relate x to y by r, and then relate r (which is also a property) to x by, say, r', and r to y by, say, r'', another relation. This again may require that x should be related to r' by a further relation r'''. This process can be repeated without end. And thus we find ourselves faced with a *regressus ad infinitum.*

The Naiyāyika averts the difficulty by pointing out that it arises because of the tacit assumption that all relations are essentially different from the relata and hence should be tied by a second relation. There is, however, no a priori necessity, so claims Nyāya, for the relation to be taken as numerically different in all cases from its relata. Nyāya thus postulated a "peculiar" kind of relation, a *svarūpa* relation, which is not to be taken as different from its relata. Thus when we come to a *svarūpa* relation, the repeating relations r', r'', etc., are not different from the first relation r, nor are they different from the relata. Through other relations the adjunct is tied to the subjunct, but through the *svarūpa* relation not only the adjunct but also the relation itself is tied to the subjunct. Besides avoiding the paradox, there is another advantage of this expedient of the *svarūpa* relation. Nyāya thus avoided the danger of the multiplication of entities or categories through what we have called "hypostatic abstraction"[28] of any further relation.

I shall pursue this case a little further. The Nyāya doctrine of the *svarūpa* or self-linking relation to solve the above paradox may seem to be alarmingly simple. Conventionally, a relation is taken as different from its relata.[29] The Nyāya

[26] Thus Uddyotakara remarks while dealing with sense-object contact as the basis of perception, "*samavāye cābhāve viśeṣaṇa-viśeṣya-bhāvāt*" (*Nyāyavārttika*, p. 97).

[27] F. H. Bradley, *Appearance and Reality*, pp. 16–17.

[28] I have borrowed this expression from Manley Thomson, though it was originally used by C. S. Peirce in a somewhat different sense; see Manley Thomson, "Abstract Terms," *Philosophical Review*, 68 (1959), 281–302. He distinguishes this from what he calls the "directive abstraction." He argues that the latter only "directs our attention but does not presuppose a separation in existence" (p. 288). "When we say 'Consider his relation to his father,' we are not presupposing three separate existing entities, the father, the son, and the relation between them; we are presupposing only that one can pay attention to the relation without paying attention to the father or to the son as he would in response to 'Consider the father,' or 'Consider the son' " (p. 288). According to Thomson it is in "hypostatic abstraction" (which may be exemplified by "our talking of a certain color or shade as the one missing from a given representation of a color series") that we presuppose further entities.

[29] Compare Jayadeva's remark: "*ata eva sambandhasya sambandhibhinnatvaniyamena svarūpa-sambandhaṃ pare dūṣayantīti bhāvaḥ,*" *TCA*, p. 715.

suggestion goes directly against this. But perhaps we can also ask: why would it be so odd if something connects itself to something else or even to itself? Does it sound as paradoxical as one's being his own father or one's climbing up on his own shoulders? Part of the oddity arises because we think of relations as universals or repeatable entities. But Nyāya does not think of relations as universals. One may go to the other extreme and ask: If concrete entities like glue are self-connecting, what harm is there if an abstract relation is thought to be so?[30] On the whole we can regard the Nyāya doctrine of the *svarūpa* relation as a heuristic device to explain certain epistemological facts.[31] It also provided Nyāya with a way out of a maze of unnecessary abstract entities.

§ **4.9** The Naiyāyikas talk of different kinds of *svarūpa* relations, of which the following three are prominent: temporal *svarūpa* relation (*kālika-viśeṣaṇatā*), spatial *svarūpa* relation (*daiśika-viśeṣaṇatā*), and absential *svarūpa* relation (*abhāvīya viśeṣaṇatā*). Besides these, most of the relational abstracts are often resolved as some kind of *svarūpa* relation.

We shall indicate, however roughly, the condition under which the Naiyāyikas have recourse to the last type of relational tie. Let us call a property "intrinsic" if it is denoted by a term abstracted from what we have called an "adjective" term (see the last paragraph of § 4.3) by adding suffixes of the type '*-tva*' or '*-tā*'. The general tendency of the Naiyāyikas was to construe any such single property denoted by such a substantivized term as a separate entity. This tendency was also aided by the easy grammatical device of the Sanskrit language by which abstract terms can be formed even out of already abstract expressions. But the Naiyāyikas also saw the danger of unnecessarily multiplying such abstract properties. Thus to avoid this obvious charge, they had to stipulate that each such *intrinsic* property, unless it is construed as a *jāti* or generic property (which implies that it is a separate *real*), is related to its locus through a relation of selfsameness, i.e., a *svarūpa* relation. This stipulation implies, from the Nyāya point of view, that we can, for the sake of convenience and simplicity, use these expressions without committing ourselves to the existence of such abstract entities.

To push the point a little further: the class of the so-called intrinsic properties (as I am using the term here) can be divided into two groups, one being the class of what Nyāya calls *jāti* 'generic properties', and the other the class of what it calls *upādhi* 'imposed properties'. To avoid unnecessary complications, I am stipulating that *guṇa* or qualities like *gurutva* (weight) and *pṛthaktva* (distinctness) should not be included in our class of intrinsic properties. In the traditional Nyāya-Vaiśeṣika system a *jāti* was accepted as a separate category, and hence it should be ontologically different from its locus or its manifestations (*vyakti*). But

[30] Karl Potter has argued in a similar manner for a self-linking connector in his "Ontology of Concrete Connectors," *The Journal of Philosophy*, February 1961. The glue example, however, should not be pressed too far. It only serves to illustrate the point that we are trying to make. Nyāya, of course, will relate glue to the paper by *saṃyoga* (conjunction), since both the relata here are, according to them, substances.

[31] Compare Gaṅgeśa's remark: "*sambandhāntaram antareṇa viśiṣṭa-pratyaya-jananayogyatvasyaiva svarūpasambandhatvāt,*" *TCA*, p. 718.

apart from these, all other intrinsic properties are earmarked as 'imposed' (*aupādhika*), and ontologically each of them is to be identified with its locus or subjunct. It may incidentally be noted that the old doctrine of *jāti* was seriously criticized by the Buddhists and that as a result while the later orthodox school built up a strong defense against the criticism of the Buddhists, they also tended gradually to narrow down the scope of *jāti* in such a way that finally only a small subclass of our intrinsic properties could be regarded as *jāti*. For example, the doctrine of *jāti-bādhaka* or obstacles to being a *jāti*, as expounded by Udayana, can be regarded as an attempt to this effect.[32]

The Nyāya position with regard to different kinds of ordinary abstract properties can be demonstrated in the following way: A *jāti* is an entity that can be substituted for x in the following proposition:

(12) "$(\exists x)(\exists y)(\exists z)(Rxyz \cdot x \neq y \cdot y \neq z \cdot x \neq z)$"

where 'R' stands for '. . . is related to . . . by the relation . . .' Thus here Nyāya conceded reality to the three elements, the two relata and the relation. *Abhāva* (absence), on the other hand, and also *samavāya* (inherence) can be substituted for x in the following:

(13) "$(\exists x)(\exists y)(R_1xy \cdot x \neq y)$"

where 'R_1' stands for '. . . is related . . . by the relation z'. Thus here the relation involved is not construed as a separate entity over and above the two relata. Coming to the case of *upādhi* (imposed property), Nyāya made further concessions. It did not accept the reality of those properties independently of their loci or *āśraya*. Thus an *upādhi* can be substituted for x in the following:

(14) "$(\exists x)(\exists y)(R_2xy)$"

where 'R_2' stands for '. . . is related to . . .'

§ 4.10 We can now at last take up the question of the relative advantages of *samavāya* and *svarūpa*. The later Naiyāyikas took great pains to show the distinction between *samavāya* and *svarūpa*. But, as I have already noted, the introduction of the concept of the *svarūpa* relation into the Nyāya system makes the position of *samavāya* itself very precarious. Raghunātha tried to reshuffle the Vaiśeṣika categories (*padārtha*) in many ways in his *PTN*. He and some others too before him saw the obvious inconsistency involved in the concept of *samavāya* or inherence. Although in the first step of hypostasis we get the permanent relation of inherence, in the second step we have to resort to a *svarūpa* relation. But in the case of absence (*abhāva*), particularly in the case of constant absence (*atyantābhāva*), which is regarded as permanent (*nitya*), we do not care for such a first hypostasis of the relation involved. In other words, we do not construe here the relation that connects absence with its locus as a separate entity as we have done in the case of inherence (connecting color, for example, with its substratum). The question naturally arises: why do we not omit also the first relation, i.e., inherence or *samavāya* (and thereby omit also a separate *padārtha* or entity from the conceptual scheme) and insert just the *svarūpa* relation in all the above cases? The common argument of *lāghava* (lightness, i.e., simplicity or economy of

[32] See Udayana, *Kiraṇāvalī* (Benares Sanskrit Series), p. 33.

vocabulary; see Chapter 10) is often offered in favor of inherence rather than in favor of *svarūpa*. Inherence is regarded as *one* entity repeatedly appearing in different cases, and hence it is on a par with a universal. But a *svarūpa* relation is a particular and hence necessarily differs from one occasion to another. It is nothing but the selfsame nature of the subjunct or locus. Since the locus may differ on each occasion (being sometimes a piece of ground, sometimes a mountain, and so on), the nature of the relation will change accordingly. This is technically called the defect of *ānantya* or innumerableness. Thus in certain cases where the two relata are construed as two separate entities having a permanent relational tie, it is simple to consider such a relation as a separate entity, i.e., one universal repeated on all such occasions. But the revisionists may point out that the law of parsimony actually helps their own case, because according to this principle the fewest assumptions are to be made in the attempt to explain ascertained facts. Thus by dropping one item, e.g., a separate entity like *samavāya*, from the conceptual scheme, they claim to simplify the conceptual apparatus a great deal. It should also be noted here that, for Raghunātha at least, the argument for avoiding the defect of *ānantya* has no appeal, for he pleaded for the manifoldness (*nānātva*) of inherence.[33]

§ **4.11** Let us turn to other varieties of *svarūpa* relation. The postulate of temporal *svarūpa* relation can be justified by the following empirical considerations. Everything occurs in time. Time has thus been conceived as the locus of everything in the universe.[34] Each entity is said to be tied to Time by the temporal *svarūpa* relation, and being a *svarūpa* relation it cannot, by definition, be ontologically construed as a different entity from its subjunct. But Time in the sense of eternal time (*mahākāla*) seldom enters into our ordinary experiences. Our usual practice is to refer to the imposed divisions or calibrations (*upādhi*) of Time, and to connect an entity to one calibration or another. In order to refer to the imposed divisions, we generally mention other finite entities of limited duration. Conventionally we use the apparent motion of the sun or the motion of the hands of a watch. The Naiyāyikas take any such finite entity as a *kālopādhi* (time segment or calibration), and then assert that any other entity can occur (by a somewhat unusual extension of the sense of 'occur') in these finite entities conceived as time segments. Here the notion of space also comes in. In other words, any *kālopādhi* may be looked upon as a time segment of the four-dimensional material world, exhaustive spatially and perpendicular to the time axis. Thus at the next step the Naiyāyikas asserted that each entity (temporal or permanent) has the potentiality to be considered as occurring in another finite entity, interpreted as a slice of time, through a *svarūpa* relation.

It is to be noted that apart from Time or *mahākāla* only noneternal objects like a pot or a mountain can be the subjunct of a temporal *svarūpa* relation. Other entities like space or sky or self, although they are eternal and omnipresent,

[33] "*Samavāyo'pi naiko jalāder gandhādimattvaprasaṅgāt paran tu nānaiva samavāyatvaṃ tu punar akhaṇḍopādhir iti*," *PTN*, p. 76.

[34] Cf. "*janyānāṃ janakaḥ kālo jagatām āśrayo mataḥ*," Viśvanātha, *Bhāṣāpariccheda*, verse 45b.

cannot be the subjunct of such a temporal *svarūpa* relation. Thus by virtue of a temporal *svarūpa* relation we can relate a teapot in New York to a table in Calcutta provided that the duration of time of the one coincides (either wholly or partially) with the duration of time of the other. In the usual course, the subjunct of the temporal *svarūpa* relation should be time itself. But although here a noneternal object like a table is taken as a subjunct, that table is also thought to possess a temporal constituent in the manner described above, and it is that temporal constituent (or, in other words, that particular calibration of time) which becomes the subjunct. (See also § 9.2.)

The spatial *svarūpa* relation (*daiśika-viśeṣaṇatā*) can be explained in a similar way. Just as finite entities are construed as calibrations of time (*kālopādhi*), objects of limited size or magnitude (Nyāya calls them the class of *mūrta* entities) can also be construed as "imposed" space segments or calibrations of space (*digupādhi*). And then at the next step, any other object can be conceived as "occurring" (in a very wide sense of the term) in such calibrations through the spatial *svarūpa* relation. Here, too, eternal objects such as atoms cannot be taken as calibrations of space.[35]

But the most interesting kind of *svarūpa* relation is the absential one (*abhāvīya viśeṣaṇatā*). The Navya-naiyāyikas, following the earlier school, regarded an absence of something as a separate category. Just as an ordinary term denotes an entity that can be treated as a property (*dharma*) occurring in some locus, an absence of that entity is also regarded as a single "whole" property occurring in some locus. But while in the former case the relation connecting the property (i.e., a "positive" property) to its locus can be different, i.e., can sometimes be conjunction, sometimes inherence, and so on, depending upon the nature of the subjunct as well as the adjunct of the situation concerned, in the latter case (i.e., in the case of absence) the relation is always called a *svarūpa* relation or *viśeṣaṇatā* (a relation of qualifier-ness).

Svarūpa relation is sometimes called *viśeṣaṇatā* (qualifier-ness) relation (see also my Notes to passage 42 of Chapter 14). The idea behind this is, however, simple. An absence of something is looked upon as the qualifier of the locus — parallelism being obviously drawn from the cases of "positive" properties, which are regarded as the qualifiers of the loci. Thus, to avoid multiplication of entities simply by hypostatization of relations, Nyāya calls such relations relations of qualifier-ness. This is merely a stylistic method Nyāya adopts to describe such a "supposed" relation without committing itself to the reality of such a relation as a separate entity over and beyond the relata.

It may sound paradoxical, but it seems to me that the introduction of *svarūpa* relation into the Nyāya-Vaiśeṣika system is a little like the proverbial camel's head under the tent (one might call it, facetiously, a Vedāntin's head): carried to its logical conclusion, the doctrine destroys the traditional system of categories. (See also §§ 8.6 and 8.7.)

[35] Thus see Jagadīśa's remark: "*nityānām avyāvarttakatvāj janyānām eva mūrttānāṃ digupādhitayā* . . . ," *TCDJ*, p. 110.

5

IDENTITY AND THE PUZZLE "A POT = A BLUE POT"

§ **5.1** Although the notion of identity is fundamental to our language and our conceptual scheme, it has been one of the most perplexing problems of philosophy. Traditionally, identity has been looked upon as a relation, but just to call it a relation marks the beginning of our difficulties. Most relations are presumed in ordinary discourse to obtain between objects, i.e., relata, which are distinct. But this test fails in the case of identity, because to say that identity relates two distinct objects is to make a self-contradictory statement. Another way of framing the objection is this: to say of two things that they are related by identity, i.e., identical, is nonsense, and to say of one thing that it is identical with itself is trivial.[1]

In modern logic, true identity statements may be interpreted as statements asserting the conventionally determined, universal, mutual substitutivity of symbols joined by '='. This permission, however, extends only to a limited range of contexts. It does not extend to oblique or opaque contexts[2] like propositional attitudes or modal contexts. For instance, the true identity statement

(1) "Scott = the author of *Waverley*"

cannot allow us to substitute "Scott" for "the author of *Waverley*" in

(2) "King George IV did not know that Scott was the author of *Waverley*"

because such a substitution leads to an obvious falsity:

(3) "King George IV did not know that Scott was Scott."

To avoid such difficulties, Frege propounded a theory that nearly every completely meaningful symbol or expression must possess two kinds of meaning: denotation and sense.[3] Thus according to Frege '2^2' and '4' denote the same thing, that is, their denotations are identical. But the sense of '2^2' involves the operation of squaring and so differs from the sense of '4'. Terms having the same denotation are substitutable for one another in ordinary contexts. But in an oblique context, terms like 'the author of *Waverley*' do not have their ordinary denotation; they have an oblique denotation that is the same as their ordinary sense. Thus the

[1] Compare Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, 5.5303.

[2] The term 'opaque context' is taken from W. V. Quine, *From a Logical Point of View*, pp. 142 f.; see also his *Word and Object*, § 35. It is similar to Frege's indirect (*ungerade*) context. The example is Russell's.

[3] Frege, "Über Sinn und Bedeutung," pp. 86 f.

identity condition for such symbols or expressions should be much stricter. Frege's distinction dispels the charge of triviality brought against identity statements, but his theory suffers from one obscurity, for it is not clear just what sort of entity the sense (*Sinn*) of a symbol may be. His theory of sense faces platonistic encumbrances.

A statement of identity need not be trivial. True identity statements that consist of unlike singular terms or names (e.g., $a = b$) denoting the same entity are informative. The sentence

(4) "Gaurīśaṅkara = Mt. Everest"

states the result of an empirical discovery.[4] Quine has pointed out that the root of our worries over identity as a relation is our fundamental "confusion of sign and object." According to him, "What makes identity a relation, and '=' a relative term, is that '=' goes between distinct occurrences of singular terms, same or distinct, and not that it relates distinct objects." [5] Without entering further into the philosophic disputes over identity, we can accept the above view as tolerably intelligible.

§ **5.2** The Nyāya concept of identity agrees with the modern concept as outlined above *only* in that Nyāya conceives of identity as obtaining between objects, not between symbols. In seeking to explain identity, Nyāya usually appeals to the notion of an indefinable property of objects, their purely numerical difference. To deny that an object *A* is numerically different from an object *B* is tantamount to saying that *A* is identical with *B*. Thus the Naiyāyika speaks of 'numerical identity', or more clearly 'numerical nondifference'. This concept can best be exemplified with reference to physical objects. The pot is identical with itself because it is not different from itself, or perhaps, to rephrase the same idea, because it is different from anything that is different from it. It goes without saying that this theory simply makes use of the truism that a thing is identical with itself. One may criticize it as being too easy to be helpful or, if apparently helpful, as being incomprehensible since the notion of difference remains inexplicable.

The best one can say for the Nyāya view is that it does no violence to common sense. It also makes use of the "useful" kind of identity statement in which '=' goes between two unlike singular terms (at least one of them being complex) that refer to the same thing. Thus,

(5) "A body of fire = the probandum of this inference."

(6) "A pot = the counterpositive of an absence of pot."

But identity as a relation becomes more important to Nyāya when it tries to explain what it calls mutual absence (*anyonyābhāva*) or difference (*bheda*). Difference or otherness is exemplified in denials such as "A pot is not a cloth." Nyāya explains that in such expressions a cloth, called the counterpositive (*pratiyogin*), is declared not to be related to a pot by identity (cf. "*tādātmya-sambandhāvacchinna-pratiyogitākābhāvaḥ anyonyābhāvaḥ*"). This comes from the commonsense notion

[4] See Quine, *Word and Object*, p. 49.

[5] *Ibid.*, p. 116.

that otherness is but a denial of identity. Nyāya explains this as denial that an entity is related by identity to something. Moreover, from such expressions as

(7) "The potter's stick = a cause (for the production) of a pot"

Nyāya goes on to explain that the potter's stick becomes such a cause through an *identity* relation.[6]

The concept of identity as it is used in identifying a tree that I see now with one that I saw some ten years ago presents a great philosophic problem. The question may be asked, for example, why we do not treat them as numerically different instances of one particular stream of *tree-stage*. This is similar to the old paradox of Heraclitus, viz., that we cannot dip twice into the same river. In the Indian tradition the Buddhists contribute to this view. Every object is *svalakṣaṇa*, i.e., is exclusively particular to each moment of its existence. They are momentary (*kṣaṇika*) in the sense that they are in universal flux, each moment generating (or, which means the same thing for the Buddhists, being identical with) an exclusively different object.

From the point of view of modern logic, as Quine suggests, we are permitted to take either of the two courses. We can identify the tree of today with the tree planted ten years ago, and in that case our appropriate general term or predicate is 'tree'. Or we can regard them as numerically different, whereupon the appropriate predicate becomes 'tree stage' (a term denoting brief temporal segments of tree).[7]

In Navya-nyāya Raghunātha indicated a solution in the following manner. Physical objects like a human body, a tree, or a mountain are to be conceived as having a spatial spread and a temporal spread alike. In other words, they are to be thought of as extended in both space and time. The numerical identity of physical objects thus conceived cannot be easily disputed. The tree of today differs from the tree of yesterday in the same sense in which the top of the tree differs from the root of the tree. According to the Navya-nyāya convention, one can offer the following equivalents:

(8) 'The tree of today' means 'the tree *delimited* (*avacchinna*) by a period of time t_1'.

(9) 'The tree of yesterday' means 'the tree delimited by a period of time t_2'.

These are parallel with the following two:[8]

(10) 'The top of the tree' means 'the tree delimited by a spatial stretch s_1'.

(11) 'The root of the tree' means 'the tree delimited by a spatial stretch s_2'.

But this is equivalent to saying that the whole tree is constituted of different parts. Thus, by reference to the Nyāya distinction of the whole from the sum of its parts, one may show that a difference in the parts has nothing to do with the identity of the whole with itself.

§ **5.3** Navya-nyāya asserts that, in certain contexts, the following type of identity statement is true:

[6] Thus Nyāya says, "*ghaṭatvāvacchinnaṃ prati tādātmyena daṇḍaḥ kāraṇam / kāraṇatāvacchedakasambandhaḥ tādātmyam.*"

[7] Quine, *Word and Object*, pp. 51–52.

[8] See §§ 9.2 and 9.3.

(12) "A pot = a blue pot."[9]

Karl Potter described it as a confusion of the Naiyāyikas.[10] But perhaps this is not so foolish as it looks. Among Western authors, Ingalls was the first to note this paradox, and he attempted to explain it by saying that the Naiyāyikas were talking about entities and not words and that the relation of identity was here taken as connecting only the qualificands, not the whole complexes. J. F. Staal sought rather to explain the paradox by referring to the structural peculiarity of Sanskrit noun-compounding.[11] In the compound *nīla-ghaṭa* 'blue-pot' the element *ghaṭa* 'pot' is said to be structurally predominant. Only that element can be syntactically construed with expressions that lie outside the compound.

But perhaps there is a much simpler explanation. This may be just an appraisal of the commonsense view that the thing itself and the thing itself with an attribute are in a sense the same. By simply mentioning an extra attribute, we do not essentially change the pot itself.[12] Thus, as Nyāya would say, it expresses a truism, viz., a thing is identical with itself, no matter whether you refer to it in a general way (*sāmānyena*) by calling it 'a pot' or in a special way (*viśeṣeṇa*) by calling it 'a blue pot'.

There are at least two ways of misconstruing such a statement. It does not, as one may think, assert the identity of the general terms or predicates (to speak in modern logical terms) like 'pot' and 'blue pot'; nor does it imply the identity of the class of pots with the class of blue pots. Obviously it would be wrong under such a construction. Also it does not allow us, as the statements of (true) identity do under ordinary circumstances, to substitute one term for the other in a sentence without affecting its truth value. This is called the "substitutivity test" of identity in modern logic.

The Navya-nyāya was quite well aware of the confusion to which such assertions might lead, and it seems to me that the only reason why they did not eliminate them from their discourse was that such assertions had the sanctity of antiquity. Thus, the Navya-nyāya rephrased such identity statements in terms of implication. Their basic principle became the following:

> When we assert that some property p is attributable to a *viśeṣya* (an object mentioned without any qualification), we cannot at the same time deny that the same property p is attributable to the *viśiṣṭa* (the same object mentioned with some qualification).

Compare "*viśeṣyavṛttidharmasya viśiṣṭānuyogikābhāvānaṅgīkārāt*," i.e., "(p) (p occurs in a pot $\supset$ p occurs in a blue pot)."

There is still another way of explaining the problem. As I carefully examine all the instances in which Navya-nyāya dealt with a statement like (12), I sometimes feel that they were appealing to some form of the principle of "the identification

[9] See Ingalls, *Materials for the Study of Navya-Nyāya Logic*, p. 69.

[10] See his review of Ingalls' book in *Philosophy East and West*, 4 (1954–55), 272.

[11] See his review of Ingalls' book in *Indo-Iranian Journal*, 4 (1960), 10.

[12] This is something like the layman's saying that a man and a white man are the same thing. See the remark in Aristotle, *Metaphysics* 1031a23–24, "for a man and a white man are the same thing, as people say . . ." (*Basic Works*, p. 789).

of indiscernibles." This principle has been the subject of much criticism in modern times. Some have argued that there is evidently the possibility that two objects might agree in all properties and still be distinct, and hence that their identification would not be fully justified. But a "mild form" of this principle is often used in philosophical discourse for useful purposes. Such a mild form of the principle is formulated by Quine as follows: "Objects indistinguishable from one another within the terms of a given discourse should be construed as identical for that discourse." [13]

This modified version of the principle is always relative to a discourse. It enables one, as Quine has shown, to construct the formula '$x = y$' from a given finite vocabulary of general terms. Thus, if in our universe of discourse we have only two predicates, say, 'F' and 'G', and if '$Fx \equiv Fy$' and '$-Gx \equiv -Gy$' hold for all values of x and y, then it is convenient to write '$x = y$' for the truth-functional conjunction of the above two bi-conditionals. The Navya-nyāya argument for asserting (12) can sometimes be demonstrated to the effect that in a given domain of discourse, where the vocabulary of predicates or general terms not only is finite but consists *only* of such absolute general terms as are applicable to both a pot and a blue pot alike, a pot and a blue pot are indistinguishable and hence interchangeable. Loosely speaking, the situation corresponds to that legal procedure in which the possession of a valid passport is taken as good ground for establishing personal identity, or to the situation in which having income of equal amount is taken as enough ground for identifying two different persons in a discourse when we are interested only in learning the income levels.[14]

§ **5.4** In Navya-nyāya, relations are usually divided into *vṛtti-niyāmaka* (occurrence-exacting) and *vṛtty-aniyāmaka* (non-occurrence-exacting),[15] according to whether the adjunct can be said to occur in the subjunct or not. The implication is that, given a relation, it will be possible to decide intuitively whether its adjunct can be described as being occurrent in the subjunct as the locus. It follows that not every subjunct is a locus of the adjunct, and not every adjunct occurs in (or is a superstratum of) the subjunct. In other words, the class of loci is a subclass of the class of subjuncts, and the class of the occurrent is a subclass of the class of adjuncts.

Samavāya or inherence, some cases of *saṃyoga* or conjunction, *svarūpa* relations connecting *samavāya* as well as absence to their respective loci, and the temporal *svarūpa* relation[16] are generally held to be occurrence-exacting. Other relations, viz., identity, *viṣayitva* or content-ness, fatherhood, the relation of cause and effect, etc., are to be taken as non-occurrence-exacting relations.

An imposed property (*upādhi*) such as adjunct-hood, although it is said to be related to its locus by a *svarūpa* relation, is not held to be different from its locus.

[13] *From a Logical Point of View*, p. 71; see also p. 117, and *Word and Object*, p. 230.

[14] See Quine, *Logical Point of View*, chap. iv.

[15] See Ingalls, *Materials*, pp. 44, 80.

[16] It is really difficult to explain why a temporal *svarūpa* relation should be regarded as occurrence-exacting. The only explanation is that a time segment is regarded as a locus on a par with a spatial locus (see Ingalls, *Materials*, p. 79).

It may be asked, how does it differ from the identity relation? We may now try to distinguish them by appealing to the notion of occurrence-exacting and non-occurrence-exacting relations. Identity is a non-occurrence-exacting relation such that, given $a = b$, we cannot use the expression "*a* occurs in *b*" or "*a* is a locus of *b*." But a *svarūpa* relation, holding between an imposed property and its possessor, is said to be occurrence-exacting in the sense that, given such a relation relating *a* and *b*, we can use the expression "*a* occurs in *b*" or "*b* is a locus of *a*," although in the final analysis, i.e., when we talk in terms of *categorial* predicates[17] to be attached to *a* or *b*, *a* can be identified with *b*. I understand that this distinction is not very illuminating unless we have some intuitive grasp of the Nyāya conception of locus. Nyāya puts great emphasis on the simple empirical fact of the Sanskrit language that in the case of a *svarūpa* relation between *a* and *b* one can construe *b* as a locus of *a* and accordingly use the locative case for *b*, but in the case of identity of *a* and *b* one cannot do so. It should also be remembered that part of our difficulty with abstract properties like *upādhi* arises from the Nyāya's predilection for a list of six or seven categories which provide the pigeon-holes into one or another of which every term used or usable in philosophic discourse must be lodged. But from another viewpoint, the Nyāya doctrine of the *svarūpa* relation and imposed property is merely a *heuristic* device necessary for the semantic analysis of certain types of cognition. Although it exhibits some oddity, the device may be taken as a step toward eliminating obscure abstract entities from the system.

One must also note that there are a few exceptions in which the intuitive notion of locus and the use of the locative case in Sanskrit do not go together, in other words, in which the object denoted by the term having a locative case ending cannot be described as a locus. For instance, we say, "*mokṣe icchā asti*" ("There is desire for [literally 'in'] salvation") where '*mokṣa*' ('salvation') is used in the locative case. From this one cannot describe *mokṣa* or salvation as a locus of *icchā* (desire), unless of course, we use 'locus' in a figurative sense. Thus, the relation *viṣayatā* (content-ness or the relation of being the content of), which connects desire to salvation (because the above sentence means that there is desire *about* salvation), is described as a non-occurrence-exacting relation. The grammarians noted that this type of locative case indicates that salvation here may be called a *vaiṣayika* (an objective) locus of desire.

The distinction between occurrence-exacting and non-occurrence-exacting relations becomes relevant to the Nyāya distinction between relational absence (*saṃsargābhāva*) and mutual absence (*anyonyābhāva*). Nyāya asserts that in all cases of relational absence the relation through which the adjunct, i.e., the counterpositive, is denied to occur in the subjunct must be an occurrence-exacting relation. That is to say, the limiting relation of being the counterpositive (*pratiyogitāvacchedakasambandha;* see § 9.5) must be occurrence-exacting. In a

[17] I use this term as Morton White uses it in *Toward Reunion in Philosophy*. For a good discussion of the notion of categories and why the distinction between categorial predicates and noncategorial predicates is dubious, see his chap. v. Also see G. Ryle, *Dilemmas*, pp. 9–10. See my further remark on the notion of category in § 8.6.

mutual absence the counterpositive is said to be not identical with the subjunct, which implies that the limiting relation in such cases is a non-occurrence-exacting relation, namely, identity.

Nyāya asserts that all negative statements should be interpreted on either of these two models: (i) "*x* does not occur in *y* through relation *r*," or (ii) "*x* is not identical with *y*." To put it in another way, negation in a sentence can significantly imply an absence of something *x* if and only if the corresponding affirmative sentence would be meaningful (although it might be false) when interpreted in either of the two forms: (i) "*x* occurs in something *y* by some relation *r*," or (ii) "*x* is identical with something *y*." It follows that Nyāya does not allow an absence of *x* where the counterpositive *x* is such that the limiting relation of being such a counterpositive is neither an identity nor an occurrence-exacting relation (see my Notes to passage 4 of Chapter 16). In Nyāya terminology, such an absence is unexampled (*aprasiddha*), a nonentity (see § 11.8).

6

THE COUNTERPOSITIVE OF AN ABSENCE

§ **6.1** The word *pratiyogin* is used in Navya-nyāya literature in two clearly distinct contexts: one in describing an absence (*abhāva*), and the other in describing a relation (*sambandha*).[1] Since it will ultimately be clear that the two uses differ very largely in sense, I shall discuss them separately as *abhāviya-pratiyogitā* (absential adjunct-ness or, better, counterpositive-ness) and *sāṃsargika-pratiyogitā* (relational adjunct-ness or countercorrelate-ness).

§ **6.2** Whenever we talk of negation or absence, it is relevant to ask of what the absence or negation is that we are talking about. Nyāya does not accept any such thing as "pure negation." Thus, an absence, it claims, must be an absence of something. This something is termed the *pratiyogin* (the counterpositive) of the absence in question.[2] In this respect the term 'absence' is comparable to the term 'cognition' (*jñāna*). An instance of cognition is also a cognition of something.

We have noted above that Nyāya arrives at absence as a property by a hypostasis of denial. It interprets denials like "*a* is not there" or "*a* is absent there" as "there is an absence of *a* there." Thus the absence of *a* is asserted as a separate entity, and *a*, the object of denial, is called the 'counterpositive'.

Here I shall concentrate my attention on the nature of the absential counterpositive. Two other relational abstracts, however, limitor-ship (*avacchedakatā*) and conditioner-ship (*nirūpakatā*), are so intimately related to the notion of counterpositive-ness that I shall be forced at times to anticipate some of the problems of later chapters.

§ **6.3** It may be well to consider the etymology of *pratiyogitā*, for Sanskrit logicians assert the principle that if etymological sense fits with the significant uses of a philosophical term, it is unnecessary to look for an artificial or technical sense.[3] '*Pratiyogitā*', consisting of the four elements '*prati*' ('counter-', 'anti-'),

[1] Ingalls, *Materials for the Study of Navya-Nyaya Logic*, pp. 44 and 55n.

[2] Cf. "*yasyābhāvaḥ sa pratiyogī*" ("counterpositive is that whose absence [is spoken of]").

[3] Nyāya sometimes follows the principle, "If *yogārtha* (etymological sense) is adequate, do not look for the *paribhāṣā vṛtti*." But this is not opposed to the usual dictum of the grammarian school: "*yogād rūḍhir balīyasī*" ("the established sense of a word is stronger than the etymological sense"), because the technical sense (*pāribhāṣikārtha*) is something created by scholars in their writings, whereas the established sense (*rūḍhārtha*) is warranted by the convention of the ordinary language.

'yoga' ('yoking', 'connection', 'effort'), *'in'* (possessive suffix or suffix of characteristic), and *'tā'* (abstract suffix), in its etymological sense means 'hostility', 'opposition' (*virodha*). In a logical context this 'hostility' may be explained as 'being nonconcurrent (noncoexistent) in the same locus'. We can now examine whether such a definition applies to all cases or not. To a certain extent the definition works. For instance, x cannot occur in the locus where an absence of x is supposed to occur, so x is called the *pratiyogin* of absence of x and hence is said to have the relational abstract *pratiyogitā* (counterpositive-ness). But Raghunātha warns us that such a definition fails when x takes as its value an entity that does not have what is called 'pervasive occurrence' (*vyāpya-vṛttitva*).[4] A property like blue-color or pot-ness occurs pervasively in a pot in the sense that in no part of the pot is there an absence of such property. Nyāya says that these are properties of pervasive occurrence (*vyāpya-vṛtti dharma*). Other properties like a pot on the ground or monkey-contact (*kapi-saṃyoga*) in a tree occur only in a part of the locus ground or tree and hence are called properties of nonpervasive occurrence (*a-vyāpya-vṛtti dharma*). The following two cases may be considered:

(1) With the same tree as locus, monkey-contact occurs in its top, and an absence of monkey-contact occurs at its root. But according to the given definition we cannot take monkey-contact as the counterpositive of its absence. This is a fault of *avyāpti* or too narrow definition.

(2) With the same potter's wheel as locus, the pot that is just now produced occurs in this moment, and the prior absence of that pot occurs there in the preceding moment. The given definition will not allow us to take the pot as the counterpositive of the said prior absence, which is a fault.

So Raghunātha improves the definition as follows:[5]

D1: x is the counterpositive of an absence y *iff* for all z, if z is a locus of y, then it is not the case that x occurs in z at the same time in the same part as y occurs, i.e., in z as delimited by the same time segment and the same spatial part that delimited z in the case of y's occurrence.

But the attempt to define counterpositive along this line is finally discarded, and a technical sense of the term is adopted for reasons that will be seen. Consider the two cases:

(3) An absence of cow-ness is a counterpositive of an absence of the absence of cow-ness, but horse-ness is not a counterpositive of the absence of the absence of cow-ness. D1 comes out true if x takes absence of cow-ness as its value and if y takes absence of the absence of cow-ness as its value. But since *horse-ness* does not occur in cow, which is also a locus of an absence of the absence of cow-ness, D1 also comes out true when x takes horse-ness as its value and when y takes absence of the absence of cow-ness as its value. This illustrates the fault of *ativyāpti* or too wide definition.

(4) A mutual absence of pot (*ghaṭānyonyābhāva*), i.e., otherness from a pot,

[4] See Ingalls, *Materials*, pp. 73, 113.

[5] *"Ekadeśakālāvacchedeneti pūraṇīyam, tena nāvyāpyavṛtter abhāvasya prāgabhāvādeś ca pratiyogitāyām avyāptiḥ,"* *TCDG*, pp. 357–358.

is also regarded as an absence in Nyāya and is thus interpreted after the paradigm case of an ordinary absence of pot. Thus a pot is a counterpositive of the mutual absence of pot. The ground is not a pot. Thus a mutual absence of pot can be said to occur on the ground. Nevertheless, a pot may occur on that ground. Now, D1 comes out false when x takes a pot as its value and y takes mutual absence of pot as its value. This illustrates the fault of *avyāpti* or too narrow definition.

Gaṅgeśa notes these two difficulties as reasons for rejecting the etymological definition.[6] Raghunātha, however, thinks that the second difficulty is loosely formulated and can be avoided easily by taking into consideration the relation through which x is denied to be related to the subjunct, i.e., the limiting relation of its counterpositive-ness.[7] Thus we can rephrase D1 as:

D2: x is the counterpositive of an absence y *iff* for all z, if z is a locus of y, then x is not related to z through the relation r, where r is the relation through which the counterpositive of y is denied to be related to its subjunct.

Now to consider (4). In a mutual absence of pot, the relation r would be, by definition, identity. A pot may occur on the ground, or may be related to it through some suitably chosen relation, but never through identity. Thus D2 will come out true when x takes a pot as its value and y takes mutual absence of pot as its value.

Gaṅgeśa finally expresses his view that *pratiyogitā* should be taken as a special kind of *svarūpa* relation (self-linking relation) comparable to the *svarūpa* relation between an absence of x and the locus of such absence.[8] But, keeping in mind the supposed definition of *pratiyogitā* offered by Udayana in *Nyāyakusumāñjali*,[9] Gaṅgeśa gives an alternative suggestion,[10] which may be presented as follows:

D3: x is a counterpositive of absence y *iff* x is identical with the absence of the absence y.

Raghunātha remarks here that D3 is also defective in its present form, since it does not apply to the counterpositive of mutual absence. For instance, the absence of a mutual absence of pot is identical with pot-ness, and not with a

[6] "*Pratiyogitvaṃ na virodhitvaṃ, sahānavasthānaniyamalakṣaṇaṃ gotvāśvatvayor atathātvāt; anyonyābhāvapratiyoginy asattvāc ca*," *TCDG*, p. 357.

[7] "*. . . itthañ ca tena sambandhenāsambaddhatvoktau nāyaṃ doṣaḥ anyonyābhāvasya tādātmyasambandhāvacchinnapratiyogitākatayā tadvati tena sambandhena pratiyogino'sambaddhatvāt*," *TCDG*, p. 358.

[8] "*Kin tu yathādhikaraṇābhāvayoḥ svarūpaviśeṣaḥ sambandhaḥ tathā pratiyogitvam anuyogitvam api*," *TCDG*, p. 357.

[9] Nyāya insists that the negate of a negation, i.e., the counterpositive of an absence, must not be an unexampled term. In other words, we cannot simply negate a term which has no denotation. To put it in another way, we cannot have an absence whose counterpositive is a fictitious entity. Thus Udayana says in *Nyāyakusumāñjali*, chap. iii, verse 2,

"*vyāvartyābhāvavattaiva bhāvikī hi viśeṣyatā*
abhāvavirahātmatvaṃ vastunaḥ pratiyogitā."

[10] "*Abhāvavirahātmatvaṃ vā*," *TCDG*, p. 357.

pot.[11] But a pot is actually the counterpositive of the mutual absence of pot. Thus D3 wrongly applies to pot-ness, but does not apply, as it should, to a pot. To avoid this difficulty, Raghunātha applies the well-known method utilized by him in several places to solve similar difficulties presented in the texts of Gaṅgeśa. He improves upon D3 in the following manner:[12]

D4: x is a counterpositive of an absence y *iff* x becomes by identity relation the object of such a cognition as is contradictory or hostile(*pratibandhaka*) to a cognition of the absence y.

It is actually observed that the cognition of a mutual absence of pot as-occurring-in-some-locus is contradicted or destroyed by the cognition of a pot as-identified-with-that-locus. The hostility or contradiction (*pratibandhakatā*) in this context is to be explained as 'nonconcurrence (of the two) in the same locus at the same time'. It is a matter of common experience that one individual self cannot comprehend something both as a pot and not as a pot.[13] Thus, the cognition "It is not a pot" and the cognition "It is a pot" contradict each other, i.e., one can destroy the other. A pot here becomes the object of contradictory cognition through an identity relation. Note that although the cognition "It has pot-ness" can also be said to be contradictory in some way to the cognition of mutual absence of pot, and pot-ness is an object of that cognition, it is not its object by identity relation.

But there are some difficulties with D4 of a rather technical nature. Raghunātha finally suggests that this alternative definition offered by Gaṅgeśa is not a happy one, and Gaṅgeśa himself has acknowledged his discomfort by putting the particle '*vā*' after it.[14] Some, however, contend that in the case of a mutual absence of a pot the relational abstract *pratiyogitā* resides both in a pot and in pot-ness alike; so the above definitions can be maintained in some sense.

Raghunātha notes several objections to D4. One is that it is open to the danger of containing an unexampled (*aprasiddha*) term in regard to certain examples. The definiens consists of two contradictory cognitions, one of which must be false to make the other true. In the case of certain examples it may so happen that the said false cognition may actually be an unexampled term, being not exemplified by any fact of the universe. That is, it may happen that nobody anywhere ever has that type of false cognition. Thus if we apply D4 in some instances of counterpositive we face the charge of using a vacuous term. And, as has been shown above, a vacuous term must be avoided in a definitional

[11] Nyāya theory of absence holds the following: (a) an absence of the constant absence is identical with the counterpositive, but (b) an absence of the mutual absence of pot, say, is identical with pot-ness. In the symbols used by Ingalls:

(i) — — $a = a$. But, (ii) — $\dot{-}$ pot = pot-ness.

For more on this point see his *Materials*, pp. 68–69, 71–72.

[12] "*Virahapadasya tajjñānapratibandhakajñāna-viṣayārthakatvāt,*" *TCDG*, p. 358.

[13] Cf. Raghunātha: "*pratibadhnāti hi tādātmyena pratiyogijñānam anyonyābhāva-buddhim, pratibandhakatvaṃ ca ekakālāvacchedenaikatrāvartamānatvam,*" *TCDG*, p. 358.

[14] Cf. Raghunātha: "*vāśabdo'trāsvarasasūcanāya,*" *TCDG*, p. 359.

procedure if it is to be made logical. Raghunātha also argues that, in order that D3 or D4 may not include pot-ness, we have to explain the absence *y* finally as an absence of *x*. Thus we run into circularity, because the particle 'of' actually refers to a *pratiyogitā*. The only way out of this difficulty is to interpret this second *pratiyogitā* or counterpositive-ness as a kind of *svarūpa* relation. This only amounts to saying that the attempt to define counterpositive-ness in the above line is not successful. Raghunātha thus favors the first alternative of Gaṅgeśa, because to define counterpositive-ness even in terms of absence or hostility (*virodha*) will involve circularity.[15] It is obvious that to define even the notion of absence-ness or hostility we must use the notion of counterpositive-ness in turn.

§ **6.4** Whenever an entity is taken as a kind of *svarūpa* relation, two things are implied. First, the entity acts as a self-linking relation relating itself (as a property) to the other relatum. It is thus that Nyāya meets the objection of infinite regress against its concept of relation.[16] Second, ontological questions about the said abstract property are avoided. Thus, if *x* is described as bearing such a *svarūpa* relation to *a*, then *x* is declared to belong to the category to which *a* happens to belong.

Counterpositive-ness is a *svarūpa* relation relating the counterpositive to the absence. But this eventually leads to other questions. "What is it that the counterpositive-ness is the same as?" "Is it the same as the counterpositive or as the absence or both?" *Svarūpa* literally means 'the selfsame'. Hence the above questions are relevant. We shall examine the three possible alternatives:

(i) It is the same as *x*, the counterpositive.
(ii) It is the same as the absence.
(iii) It is the same as, or it amounts to, both the absence and the counterpositive.

It should be noted that the concept of absence and the concept of counterpositive-ness are related in such a way that if the counterpositive-ness involved in one instance of absence is asserted as identical with that involved in another absence, then the two absences are indistinguishable from each other. In other words, to distinguish one absence from the other, Nyāya demands that one must distinguish its counterpositive-ness from that of the other. Keeping this in mind, Jagadīśa rejects alternative (i)[17] for the following reason. A large section of Nyāya speaks of a generic absence (*sāmānyābhāva*) as distinct from what may be called a specific absence (*viśeṣābhāva*). The generic absence of pot and a specific absence of pot have one feature in common: the counterpositive in both the cases is pot. But the limiting character or the limitor (*avacchedaka*) of the property of being the counterpositive is different in each case. In the former case it is the generic character pot-ness, while in the latter it is the individual character of a given pot

[15] "*Abhāvatva-pratibandhakatvayoḥ pratiyogighaṭitatvāt, tathāvidhavyavahāragocarasyāpi vinā pratiyogitāṃ nirvaktum aśakyatvāt*," *TCDG*, p. 359.

[16] See § 4.8.

[17] "*Tattatpratiyogimātrasvarūpatve sāmānyābhāva-viśeṣābhāvayoḥ pratiyogitayor aviśeṣāpatter iti dhyeyam*," *TCDJ*, p. 258.

(*tad-vyaktitva*). I can illustrate the point more clearly with another example. The following two instances of absence, viz.,

(a) "Rāma is absent,"

(b) "The great king of Ayodhyā is absent,"

have the same object as counterpositive. But in one case we cognize the counterpositive as 'Rāma' while in the other case as 'the great king of Ayodhyā'. Thus, Nyāya will assert that the counterpositive-ness in one case is limited by the individuality (*tad-vyaktitva*) in Rāma, while in the other case it is limited by the property of being the great king of Ayodhyā. Jagadīśa argues that this important distinction will be hard to maintain if we accept alternative (i). Gadādhara accepts this argument and goes on further to show that Nyāya distinguishes instances of absence even when it is only the limiting relations of the counterpositive-ness that vary. But under alternative (i) such fundamental differences would be actually indiscernible.

The objection to alternative (ii) is to be framed in a different way. One section of Nyāya postulates that two absences which are coextensive (i.e., *samaniyata*, in the sense that one occurs in a locus if and only if the other occurs there)[18] are to be construed as identical. But the counterpositive-ness involved in one case must be maintained as distinct from that in the other, because otherwise the following absurdity will occur. The two absences exemplified by (a) and (b) above can be taken as identical under this view since they are coextensive (in our given sense). Now the contradictory cognitions of (a) and (b) will be as follows:

(c) "Rāma is present,"

(d) "The great king of Ayodhyā is present."

From simple logic of relations it follows that if (c) is contradictory to (a) and if the absence expressed by (a) is identical with that expressed by (b), then (c) must also be contradictory to (b). But actually it cannot be so, because it is obvious that cognition (c) is quite compatible with (b). To avoid this, the counterpositive-ness in (b) is ruled by Nyāya to be distinct from that in (a). Now, if we were to accept alternative (ii), this necessary distinction could not be maintained, because either counterpositive-ness, being the same as its respective absence, would have to be construed as identical with the other.

Gadādhara is a little more cautious in framing his objection against (ii). He argues[19] that $\sim(\sim(\sim a)) = \sim a$.[20] But the counterpositive of $\sim(\sim(\sim a))$ is $\sim(\sim a)$. Therefore, the counterpositive of $\sim a$, which is identical with $\sim(\sim(\sim a))$, is $\sim(\sim a)$ as well as a. Nyāya grants this deduction, but also holds that the counterpositive-ness resident in a must be distinguished from that resident in $\sim(\sim a)$. But under (ii) we cannot maintain such a distinction, since absence is the same in both the cases. Thus, we must reject (ii).

[18] I have discussed this notion of *samaniyata* and the possible confusion over it in a paper "The Intensional Character of *Lakṣaṇa* and *Saṃkara*," *Indo-Iranian Journal*, 8 (1964–65), 85–95.

[19] "*Abhāvasvarūpatve ghaṭādyabhāvīyaghaṭatvādyavacchinna-pratiyogitvakiñcidviśiṣṭaghaṭābhāvābhāvatvādyavacchinnapratiyogitānām availakṣaṇyāpatteḥ*," *TCDG*, p. 478.

[20] See Ingalls, *Materials*, p. 68, note 135. I use the sign '$\sim$' as an abbreviation for 'absence of'; see § 3.1.

Jagadīśa, in his commentary on the *Avacchedakatva-nirukti*, apparently gives his verdict in favor of alternative (iii),[21] in spite of the evident awkwardness. Under (iii) it is clear that one has to admit two different types of counterpositive-ness: one being the same as the counterpositive and the other the same as absence. For otherwise, by applying the simple law of the transitivity of identity, '$aIb \cdot bIc \cdot \supset \cdot aIc$', it can be argued that the counterpositive and its absence are identical, an obviously absurd conclusion.

To postulate two types of counterpositive-ness in a simple case of absence is, however, not a happy solution. Thus we are led to a fourth alternative, that the counterpositive-ness is neither the same as the counterpositive nor the same as the absence, but a different entity. Here we come quite close to the final view noted by Raghunātha. In defiance of the traditional Vaiśeṣika system of seven categories (*padārtha*), some maintain that counterpositive-ness may be taken as a separate category. In the concluding line of his *Siddhāntalakṣaṇa-dīdhiti* (a part of *TCD*), Raghunātha mentions this view as being held by a section (*ekadeśin*) of the Naiyāyikas.[22] Rāmabhadra, in his commentary on Raghunātha's *PTN*, states clearly that, among many other categories, counterpositive-ness is one that has been accepted by Raghunātha.[23]

I have already indicated my attitude toward these abstracts. They may be taken as heuristic devices that await further explanation. The different categories that Raghunātha and some other Naiyāyikas recommend for our acceptance may be viewed as mere posits for a consistent building up of the Navya-nyāya theory. Whether they are real or not can perhaps be construed as a separate question. (See also § 7.6 for a somewhat different explanation.)

§ **6.5** Another interesting question is often asked about this peculiar property, *pratiyogitā* (counterpositive-ness): Through which source of knowledge do we come to cognize it? The apparent answer that may be offered is as follows. Since the Naiyāyikas of the later school accept that an absence of x is cognizable through perception provided that the counterpositive x is a perceptible entity, the property counterpositive-ness involved in the said absence (which is presumably a relation between x and that absence) is also said to be cognized through perception. In other words, the percept expressed as "an absence of x" is analyzable into three constituents: the qualifier x, the qualificand absence, and the relation counterpositive-ness linking them. But it may be argued that in such a percept we cognize only a relation (*sambandha*) as we do in all other qualificative cognitions. We do not cognize that relation as a *pratiyogitā*. So the above question is answered in a different way. *Pratiyogitā* is cognized through inference. One can proceed as follows. First infer that a cognition of an absence of x involves the cognition of a relation r from the premises:

[21] "*Svarūpasambandhātmikāyā iti prativyaktibhinnatve hetuḥ, tattadabhāva-pratiyogy-ubhaya-svarūpāyā iti tadarthaḥ,*" *TCDJ*, p. 258.

[22] "*Viṣayatā-tattvādivat pratiyogitvādhikaraṇatva-tattva-sambandhatvādayo'py atiriktā eva padārthā ity ekadeśinaḥ,*" *TCDG*, p. 475.

[23] "*Viṣayatādipadād viṣayitva-pratiyogitvānuyogitvāvadhitvāvadhimattvādhāratvādheyatva-dikkālanirūpitaviśeṣaṇatva-viśeṣyatvāvacchedakatvāvacchedyatvādayaḥ,*" *PTN*, p. 127.

(e) All qualificative cognitions involve the cognition of a relation, and

(f) The cognition of an absence of x is a qualificative cognition.

Then, from the additional premise that the relation r thus obtained is not identifiable with the well-known relations like conjunction and inherence, infer that r is a new type of relation called *pratiyogitā*.

Whatever the status of counterpositive-ness, one thing is clear: this abstract concept is entirely dependent upon the concept of absence. Thus the sentence "x is absent" is interpreted in Nyāya language as 'an absence which conditions (*nirūpayati*) a counterpositive-ness resident in x'. Gadādhara has an alternative suggestion.[24] He thinks that the concept of *pratiyogitā* is not indispensable and that it is theoretically replaceable by another and probably more fundamental concept, *anuyogitā* or subjunct-hood. In the cognition "x is absent" the counterpositive x appears only as a qualifier of the qualificand absence. Again, when an absence of the (magic) gem is held to be the cause of burning by fire, the counterpositive gem is regarded as the *kāraṇatāvacchedaka* (the limitor of the relational abstract, cause-ness). Thus if we are to speak of a self-linking relation, it will be more convenient to speak of a self-linking relation that is resident in the absence and conditioned by the counterpositive x. This self-linking relation is usually called the *anuyogitā* or subjunct-hood, the property of being the subjunct. On the other hand, we do not usually cognize a counterpositive x as qualified by its absence. This means that the concept of a subjunct-hood is more important in our uses of absence. Thus we speak of a *pratiyogitā* only as a dependent concept definable in terms of *anuyogitā*, which, in turn, can be held to be a more fundamental concept. Gadādhara makes a concession, however, to *pratiyogitā* in such cases of absence as destruction (*dhvaṃsābhāva*).[25] It can be shown that the counterpositive x, and therefore the property counterpositive-ness in x, plays an important role in our cognition and use of the notions of the *destruction* or *posterior absence* of x. A pot is a necessary condition for the emergence of what is called 'destruction of pot' (namely, the event in which a pot is destroyed). This shows the importance of the counterpositive pot in such cases of absence.

§ **6.6** Here I shall note, in brief, the well-known controversy between Sondala and Gaṅgeśa over the division of *pratiyogitā* (counterpositive-ness) and the consequent division of absence. Sondala[26] and his followers maintained that there are two types of *pratiyogitā*. One is delimited by a concurrent property, i.e., by a property that occurs in the same locus with the *pratiyogitā* itself (*samānādhikaraṇa-*

[24] "*Idan tv avadheyaṃ, ghaṭo nāstīty abhāvabuddhāv abhāvāṃśe pratiyogina eva prakāratayā bhānān, maṇyabhāvādeḥ kāraṇatve pratiyogino'vacchedakatvāc ca abhāvaniṣṭhaḥ pratiyoginirūpito 'nuyogitākhyaḥ svarūpasambandhaḥ avaśyam aṅgīkāryaḥ*," *TCDG*, p. 372.

[25] "*Dhvaṃsasya pratiyoginiṣṭhapratyāsattyā pratiyogijanyatvānurodhena tasya pratiyogini sambandhopagama āvaśyaka iti ced astu tathā, tathāpi abhāvāntarasya tādṛśasambandho niṣpramāṇa eva*," *TCDG*, p. 373.

[26] Sondala is usually called Sondaḍa-mīmāṃsaka. His works are lost, but Gaṅgeśa mentions his view in several places. For further references see D. C. Bhattacharyya, *Baṅge Navya-nyāya Carcā*, p. 14.

dharmāvacchinna-pratiyogitā). The other type is supposed to be delimited by a nonconcurrent property, i.e., a property that does not occur in the same locus as the *pratiyogitā* (*vyadhikaraṇa-dharmāvacchinna-pratiyogitā*). The first type is illustrated in a cognition like "A pot as qualified by pot-ness (or, by substance-ness, etc.) is absent here." What appears as the qualifier of pot in the cognition is actually the delimitor (or limiting property) of the counterpositive-ness in pot. Pot-ness or substance-ness occurs in pot and hence is concurrent (*samānādhikaraṇa*) with the counterpositive-ness. The second type is illustrated in a cognition like "A pot as qualified by cloth-ness (*paṭatva*) is absent here." Here cloth-ness becomes the delimitor of the counterpositive-ness in pot, and hence it is not concurrent (*vyadhikaraṇa*) with such counterpositive-ness. Note that the counterpositive in both cases is the same, i.e., a pot. But the subjunct or locus of the absence illustrated in the first case is any entity in which a pot is absent, whereas the locus of the second absence would be any entity in the universe, because a pot as qualified by cloth-ness exists nowhere. A more familiar example of the second type would be, "There is no rabbit here as qualified by horns." Gaṅgeśa accepts the first type of absence but rejects the second type.[27] The issues involved here are ultimately related to the problem of the negation of self-contradictory terms in logic,[28] or to the problem of the truth value of the proposition whose subject has no denotatum.[29] To modify Russell's example in order to check the Navya-nyāya theory on the problem in general: "The present king of France is absent." Sondala will analyze this as speaking of an absence whose counterpositive is the king of France as qualified by the property present-ness. That is, it is an absence where the counterpositive-ness in the king of France is delimited by the property present-ness. Gaṅgeśa, however, will analyze it as speaking of an absence of the property present-ness in the king of France. Note that 'the king of France' is not an empty term, but has denotation, i.e., denotes any such king of the past, and the property present-ness is exemplified by *present* objects.

There is an epistemological reason for Gaṅgeśa's rejection of the Sondala position. Nyāya asserts that a qualificative cognition, in which b appears to qualify a, itself being qualified by another property c, is produced by a prior cognition in which c appears to qualify b. We may express this in symbols by writing that "$Q(aQ(bc))$" is produced by the prior cognition "$Q(bc)$." Thus the cognition "The ground possesses a blue pot" needs a cognition "a blue pot" as its cause. Under Sondala's interpretation, the above sentence expresses a cognition in which the counterpositive, the king of France, appears to qualify absence, itself being qualified by the property present-ness; and hence this will need another cognition where present-ness should appear to qualify the king of France. But this second cognition is not possible unless it happens to be an error or a false cognition, which means that the resulting cognition will also be false. And a false cognition

[27] "*Pratiyogyavṛttiś ca dharmo na pratiyogitāvacchedakaḥ*," *TCDJ*, p. 121.

[28] I have discussed this matter from a slightly different point of view in "A Discourse on the Self-Contradictory Terms in Nyāya," *The Calcutta Review*, 158 (1961), 10–16.

[29] See Russell, "On Denoting."

cannot guarantee that there is such a counterpositive-ness which is delimited by a nonconcurrent property.[30]

It may be noted here that, under the section "*Vyadhikaraṇa*" of the *TCDJ*, Jagadīśa has remarked that the problem connected with the concept of *pratiyogitā* as a *svarūpa* relation may also be settled in the following way.[31] In the case of a generic absence (*sāmānyābhāva*) of *x*, the counterpositive-ness of the absence should be taken to be the same as its delimitor or limiting property. Normally if a pot is the counterpositive, pot-ness would be such a delimitor, and the counterpositive-ness would be nothing more than this property pot-ness. In the case of a specific absence of *x*-as-qualified-by-a-generic-property-of-*x* (*sāmānyadharmeṇa viśeṣābhāva*), the counterpositive-ness should be the same as the specific property that appears to be qualifying the counterpositive. Thus, if a pot as qualified by substance-ness (*dravyatva*), i.e., a pot in the capacity of being a substance (*dravya*), is said to be absent, the counterpositive-ness would be the same as *pot-ness*, not the generic property *substance-ness*, although it happens to be the delimitor in this case. But in the case of an absence in which the counterpositive-ness is said to be delimited by a nonconcurrent property (as in Sondala's case), the supposed counterpositive-ness must be taken as a separate entity, neither the same as the counterpositive nor the same as its delimitor. Thus the net claim of Sondala amounts to accepting a different type of counterpositive-ness and accepting it also as a separate entity.

[30] Compare Gaṅgeśa: "*tadviśiṣṭajñānasyābhāvadhīhetutvād anyathā nirvikalpakād api ghaṭo nāstīti pratītyāpatteḥ, gavi śaśaśṛṅgaṃ nāstīti pratīter aprasiddheḥ, śaśaśṛṅgaṃ nāstīti ca śaśe śṛṅgābhāva ityarthaḥ,*" *TCDG*, p. 318. Raghunātha makes this clear: "*viśeṣaṇatāvacchedakaviśiṣṭa-jñānasya viśiṣṭavaiśiṣṭyapratyayahetutvād abhāvapratyayo hi ghaṭatvādiviśiṣṭasya ghaṭādeḥ pratiyogitvam avagāhamāno viśeṣaṇasyāpi ghaṭatvādes tadavacchedakatvam avagāhate na tu svātantryeṇa ghaṭo nāstīty eva pratīteḥ,*" *TCDG*, pp. 318–319.

[31] "*Pratiyogitvaṃ hi svarūpasambandhaviśeṣaḥ, sa ca sāmānyābhāvasthale pratiyogitāvacchedakasvarūpa eva, na tu pratiyogisvarūpo'nanugamād ādhārādheyabhāvānupapatteś ca; sāmānyadharmeṇa viśeṣābhāvasthale ca pratiyogyaṃśe prakārībhūto viśeṣadharma eva na tu sāmānyadharmaḥ, atiprasaktatvāt; vyadhikaraṇadharmāvacchinnābhāvasthale ca pratiyogitāvacchedakaṃ na pratiyogitvaṃ kintv atiriktam . . . vivādo'py atiriktāyāṃ pratiyogitāyāṃ eva,*" *TCDJ*, p. 125.

7

THE ONTOLOGICAL STATUS OF *VIṢAYATĀ* (CONTENT-NESS)

§ **7.1** Worries about the ontological status of *viṣayatā* (content-ness) were predominant in the later period of Navya-nyāya. We can now examine some of the views regarding the matter. The prevailing tendency was to treat content-ness, like other relational abstracts, as a *svarūpa* relation. Gaṅgeśa must have held this view, as one may infer from his remark at the end of the *Abhāva-vāda* of the *Pratyakṣa-khaṇḍa* of the *TC*.[1] He explicitly stated that to avoid the danger of an infinite regress (*anavasthā*) we should accept such a self-linking relation. Jānakīnātha, a junior contemporary of Raghunātha, in his *Nyāyasiddhāntamañjarī* refers to the same view: "*viṣayatā ca viṣaya ity ākārapratītisākṣikaḥ svarūpasambandhaviśeṣaḥ*" ("And content-ness is a special kind of *svarūpa* relation which is evidenced by the experience in the form of content").[2] But in the next line he refers to an *ekadeśin* view (i.e., the view of a section of the Naiyāyikas) according to which content-ness is to be regarded as a separate entity.[3]

The first view is in agreement with the traditional scheme of six (or seven) categories (*padārtha*). But the second view is equally prominent, perhaps owing to the influence of Raghunātha. In his *PTN*, Raghunātha, as already mentioned, wants to accept many relational abstracts as separate entities constituting additional categories. At the end of his discussion he says: "*etena jñānādiviṣayatā vyākhyātā*" ("In this way, content-ness belonging to cognition etc. is explained").[4] Raghudeva explains *etena* as "*kḷptapadārthānantarbhāvena*" ("because it is not subsumable under any one of the well-known categories").[5] This implies that *viṣayatā*, too, should be regarded as a separate entity.[6] In his *Dīdhiti* on *TC*, however, Raghunātha refers to this view as the view held by a section of Nyāya

[1] "*Jñāna-viṣayayoḥ samavāya-samavāyinor iva sambandhāntarābhyupagame cānavasthābhiyā tatsambandha-sambandhinor api tādṛśasambandhasvīkārād iti siddho'tirikto'bhāva iti tadgrāhikā viśeṣaṇateti siddham etat,*" TCA, pp. 718–719.

[2] *Nyāyasiddhāntamañjarī*, p. 2.

[3] "*Padārthāntaram ity ekadeśinaḥ,*" *ibid.*

[4] *PTN*, p. 78.

[5] Raghudeva in *PTN*, p. 78.

[6] Compare Rāmabhadra in *PTN*, p. 127. See Chapter 6, note 23, above.

(*ekadeśin*).[7] Jagadīśa in his commentary remarks here as follows: "Since some have accepted content-ness as a separate entity, it has been used here as an instance to prove the point." [8]

But Gadādhara, while commenting on this line of Raghunātha, describes the upholders of this view as "*prācīnaikadeśinaḥ*" (a section of the older school of Nyāya).[9] Curiously enough, in his *Viṣayatā-vāda* Gadādhara describes the same view as being held by the "*navyāḥ*" — by the New Naiyāyikas.[10] We know that an inclination to accept new entities forming new categories or *padārtha* over and above the traditional scheme of six or seven categories appears in the writings of Raghunātha, though perhaps not for the first time. It is likely that a section of the older school was similarly inclined.

§ **7.2** We have noted elsewhere that to describe a relational abstract as a *svarūpa* relation is merely a heuristic device and so demands further explanation. Attempts have been made to that effect regarding *viṣayatā* or content-ness. This is well evidenced by the writings of Gadādhara and Raghudeva.[11] If content-ness is taken as a *svarūpa* relation relating a cognition y to its object x, then we have, as before, the following three alternatives to consider:

(i) The content-ness as an entity is the same as the cognition y.
(ii) It is the same as the object x.
(iii) It is the same as both the cognition and the object.

If we accept (i), we must face the following absurd consequence. A true cognition in the form of the conjunction (*samūhālambana*) "a pot and a cloth" would have to be regarded as false. One among many definitions of false cognition offered by Nyāya (see also § 2.9) can be formulated as follows:

D1. A cognition y is false *iff* it has a content-ness that is delimited by a property p but occurs in a locus where p does not occur.

In our present example, the cognition has a content-ness that is delimited by pot-ness since it is cognition of a pot. According to assumption (i), content-ness resident in pot would be identical with the content-ness in cloth, both being the same as the cognition itself (by the principle of the transitivity of identity, $aIb \cdot bIc \cdot \supset \cdot aIc$). Now this content-ness is delimited by *pot-ness* but occurs in a locus, i.e., cloth, where *pot-ness* does not occur. Hence the above true cognition satisfies D1 and turns out to be false if we assume (i).[12]

Acceptance of (ii) will also lead to difficulties. We may cognize a tree and a monkey and a relation of contact as discrete individuals at the same time. The

[7] See Chapter 6, note 22, above.

[8] "*Atirikta-viṣayatā-pakṣasya kenacit svīkārād dṛṣṭāntatā,*" *TCDJ*, p. 256.

[9] Cf. "*prācīnaikadeśibhir viṣayatāyā viṣayātiriktapadārthatvopagamād dṛṣṭāntatvena tadupanyāsaḥ,*" *TCDG*, p. 477.

[10] See *Viṣayatā-vāda*, p. 1.

[11] See *TCDG*, pp. 477–478, and Gadādhara, *Viṣayatā-vāda*, p. 1, for Gadādhara's remarks. And see the *Ṭikā* of *PTN*, p. 78, for Raghudeva's remarks.

[12] Cf. Raghudeva: "*viṣayatāyāḥ jñānarūpatve ghaṭapaṭāv iti samūhālambanasya bhramatvāpattiḥ / tatra tadubhayaviṣayatāyā ekajñānasvarūpatvena ghaṭatvādyavacchinna-ghaṭatvādyabhāvavadvṛtti-viṣayatāpratiyogitvarūpa-bhramatva-sattvāt,*" *PTN*, p. 78. Almost the same argument is found in Gadādhara, *TCDG*, pp. 477–478.

result will be a cognition of the form "a tree *and* a monkey *and* a contact." This is a *samūhālambana* cognition. We may also cognize a contact as a discrete individual along with the tree as related to monkey. The result will be another cognition of the form "a contact *and* a tree that has a monkey (on it)." This is another *samūhālambana* cognition, although the objects cognized here are exactly the same as those cognized in the first. But the two cognitions are, nevertheless, different. But, under assumption (ii), one would be indistinguishable from the other since the content-ness in one case would be identical with the content-ness in the other, both being identified with the objects involved. But Nyāya postulates that a cognition is distinguished from another by virtue of its content-ness or *viṣayatā*. In the above we obviously cannot apply this principle to distinguish the two cognitions.[13] Note here the important theory about the identity-condition of a cognition in Nyāya. Cognitions are to be identified, not when their objects are identical, but when the relational abstract content-ness of one is identical with that of the other.

The third alternative is also not a very happy one. Gadādhara formulates a rigorous case to expose its absurdity.[14] Nyāya holds that if in the verbal expression of a true cognition an object is mentioned, it refers back to an unmentioned qualifier and thereby an unmentioned content-ness in such a qualifier. Consider the cognition whose verbal expression is "A pot has a *jāti* (generic property)." Here the qualificand pot has two qualifiers, one unmentioned, i.e., pot-ness, another mentioned, i.e., a generic property. Thus the content-ness in pot-ness as such differs from the content-ness in that generic property mentioned in the expression. But actually that generic property refers to no other entity than pot-ness. Hence the objects involved are the same in both cases. And the cognition is the same. Thus, under the third alternative, the content-ness in one would be indistinguishable from that in the other. But this goes against the Nyāya theory, which maintains that an unmentioned content-ness is different from a mentioned content-ness. Thus we have to reject (iii) too.

Because of such difficulties involved in the view that content-ness is a *svarūpa* relation, it has been argued that it is better to accept it as a separate entity forming an independent category. But ordinarily content-ness may be regarded as a self-linking relation of cognition (i.e., a peculiar property of a cognition) and may be said to belong to the same category as the cognition.

[13] I have roughly followed Raghudeva in giving this example. Gadādhara has a somewhat similar argument: *"viṣayatāyā viṣayarūpatve dravyatvāvacchinna-viṣayaka-jñānād ghaṭatvāvacchinna-tadviṣayaka-jñānasya viṣayatā-vailakṣaṇya-virahād availakṣaṇyāpattiḥ," TCDG*, p. 477.

[14] *"Jñāna-viṣayobhayarūpatve ca jātimān ghaṭa ityādijñānīyaghaṭatvādi-viṣayatāyā dvaividhyānupapattiḥ, jñāna-viṣayayor aviśeṣād iti," TCDG*, p. 478.

8

THE RELATIONAL ADJUNCTS

§ **8.1** In § 4.3, using the notion of relational abstracts, we analyzed expressions of the form "x is r to y" as follows:

(1) The relational abstract ϕ resident in x and conditioned by y.

(The reader should bear in mind that Nyāya relations are one-directional.) For example, one may use ground as a value for x, a pot as a value for y, and the locus-hood relation as a value for ϕ. We have also seen that Nyāya describes the pot y in such a context as 'the adjunct or *pratiyogin* of ϕ'. But here we have another expression of the form "x is r to y," e.g., "y is the adjunct of ϕ" or "x is the subjunct of ϕ." Consequently, there is scope for deriving a further relational abstract by applying the same principle. We can have:

(2) Adjunct-hood resident in y and conditioned by ϕ.

(3) Subjunct-hood resident in x and conditioned by ϕ.

With slight manipulation of the variables, these two can easily be assimilated into form (1). We also found that Gadādhara defined relation as a special type of adjunct-hood or subjunct-hood. This suggests that Gadādhara thought each of these two, adjunct-hood and subjunct-hood, to be more fundamental than the concept of relation. In this chapter we shall inquire into their nature.

§ **8.2** We shall first try to explain the concept of *pratiyogitā* with the help of its etymological sense. It is a combination of four meaningful component parts: *prati* + *yoga* + *in* + *tā*. To these four parts we may assign meanings somewhat different from those which we assigned when etymologizing *abhāvīya-pratiyogitā* 'absential counterpositive-ness'.[1] To explain *pratiyogitā* in the sense of 'adjuncthood' we may say that '*prati*' means *pratigata* or *svīkṛta* 'at hand' or 'accepted'; '*yoga*' means *sambandha* 'relation'; '*in*' means 'possessor'; and '*tā*' means 'the nature of'. Thus *pratiyogitā* may mean as a whole 'the nature of being the relation-possessor'. Keeping this derivative sense in mind, we can frame a definition as follows:

D1: x is the adjunct of a relation *iff* x is a relatum of that relation, and for something y, x occurs in y by the same relation.

This definition is somewhat imprecise. When a monkey m, for instance, occurs by conjunction s in a tree t (i.e., m sits on t), Nyāya calls m the adjunct of s. But the

[1] Cf. § 6.3.

above definition is also applicable to tree *t*, because *t* is also a relatum of the relation of conjunction, and *t*, in turn, may very well occur (and actually occurs) in something else by conjunction. A rejoinder may say that although we apply the generic name conjunction (*saṃyoga*) to the two instances of relation — one by which *m* occurs in *t*, and the other by which *t* occurs in something else, say, ground — they are not at all identical. So we can make our definition precise by rephrasing as follows:

D2: *x* is the adjunct of a relation *r iff x* is a relatum of *r*, and also for something *y*, *x* occurs in *y* by *r*.

Thus, in the above example, *t* may be a relatum of *s*, but *t* occurs nowhere by relation *s*.

But still when we consider the relation inherence (*samavāya*) we are again in difficulties, because inherence in the traditional Nyāya-Vaiśeṣika system is like a universal, a repeatable entity which is the same in different instances. Blue-ness (a generic property) occurs in the color blue by inherence, and the color blue occurs in a blue thing, e.g., in a blue pot, by inherence again. These suppositions follow directly from the ontological scheme of the traditional Nyāya-Vaiśeṣika school. Now, here how can one argue that inherence in the first case differs from inherence in the second case? And hence how can one say that D2 is a flawless definition? Here our problem turns into the specification of the identity-condition of Nyāya relations.

§ 8.3 The favorite puzzle by which the Naiyāyikas exemplified the above difficulty is the following. Air has motion, which can only be explained in the Nyāya-Vaiśeṣika system by the fact that motion (*kriyā*) inheres in air. It follows that air must have inherence (*samavāya*) as one of its properties, namely, inherence of motion. Nyāya says that earth, water, and fire, but not air, have color. It follows that earth, water, and fire have inherence as one of their properties, namely, inherence of color. Now inherence behaves like the universals, not like the relational abstracts of the Naiyāyikas. These relational abstracts, in different instances, are said not to be identical but similar. But the cow-ness in one cow is identical with the cow-ness in another, and so with inherence. It would therefore seem that air must possess the identical inherence that is possessed by earth, water, and fire. Thus, a cognition that air has color would not be false.[2]

To avoid this violation of common sense, one may say that inherence as such can occur in air (because such properties as motion inhere in it), but the "qualified" inherence, inherence of color (*rūpa-samavāya*), surely does not occur there. But such an argument will not hold, because the Naiyāyikas asserted that a "qualified" entity does not differ from the entity as such.[3] Faced with such difficulties, some of the later Naiyāyikas rejected the character of one-ness of inherence and proposed that it also has different individual instances.[4] Thus in fact inherence

[2] For different definitions of false cognition see §§ 2.9 and 7.2. See also Viśvanātha, *Siddhānta-muktāvalī*, pp. 56–57, for the argument presented here.

[3] See § 5.3 for a discussion of this principle.

[4] Compare Raghunātha: "*samavāyo'pi ca naiko jalāder gandhādimattvaprasaṅgāt, paraṃ tu nānaiva, samavāyatvaṃ tu punar anugatam akhaṇḍopādhir iti,*" *PTN*, p. 76.

as such was no longer regarded as a universal in the sense of a repeatable entity.

§ **8.4** The upshot of the above discussion is that we need a formal criterion for individuating different instances of relation, or to be more precise, different relation-particulars. The following suggestion may be considered (see also § 4.3). Let there be a special domain of predicates which contains only different general names for the Nyāya relations — conjunction, inherence, etc. To be sure, predicates 'F', 'G', etc. will represent only such predicates as 'is a conjunction', 'is an inherence', and the like. I understand the difficulties of working this scheme successfully. Nyāya relations are, as we have seen, intensional abstracts, and hence their names cannot be as easily handled as general terms. But, using Quine's symbol for intensional abstraction, I can write a Nyāya relation in the form '$xy[\ldots x \ldots y \ldots]$'.[5] Thus locus-hood relation can be written '$xy[x$ is a locus of $y]$'. Then at the next step, I want to write "$F\phi$" to represent "ϕ is a locus-hood relation" or "ϕ is $xy[x$ is a locus of $y]$." Quine, if I am not mistaken, takes a similar line when he suggests that we treat "Tom believes $y[y$ denounced Catiline] of Cicero" as "Fab" where 'a' = 'Tom', 'b' = 'Cicero', and 'F' stands for 'believes $y[y$ denounced Catiline] of'.[6] In this form the intensional abstracts stay irreducibly as portions of the composite general terms or predicates 'F', 'G', etc. Now the proposed identity condition can be written as follows: "$\phi = \psi$" for the truth-functional conjunction of

(i) "$F\phi \equiv F\psi$"

and

(ii) "$(x)(y)(y$ conditions $\phi \cdot \phi$ occurs in $x :\equiv: y$ conditions $\psi \cdot \psi$ occurs in $x)$."

This is in a sense an adaptation of the principle of the identification of indiscernibles. Moreover, the Naiyāyikas think that our interest or the nature of our inquiry will also determine the identifying condition of a relation. If in a given discourse we are interested in analyzing the relations only with reference to their adjuncts, and if no consideration for their subjuncts arises within that context, then we can condense (ii) as:

(iii) "$(y)(y$ conditions $\phi \equiv y$ conditions $\psi)$."

And when in a given discourse we are interested in specifying neither the adjunct nor the subjunct of relations, we can even drop (ii) or (iii) altogether and retain (i) as defining the identity of relations.

I am aware of the awkwardness of the formulation in (i). Perhaps, a clearer statement will be

(iv) "$(F)(F\phi \equiv F\psi)$."

(See also §§ 9.4 and 9.5.)

§ **8.5** It may be evident that although D2 holds in many cases of adjunct-hood, it fails in certain cases where the relation r is what we have called a non-occurrence-exacting relation (*vṛttyaniyāmaka-sambandha*).[7] Adjuncts of such relations cannot

[5] W. V. Quine, *Word and Object*, p. 168.

[6] *Ibid.*, p. 216.

[7] See § 5.4.

be said to occur in the subjuncts through that relation. One may suggest the following definition to avoid the difficulty:

D3: x is the adjunct of r *iff* x is a relatum of r, and for something y, x is related to y by r.

But here we face, perhaps, the defect of circularity. We were actually trying to find some philosophical explanation of the concept 'x's being related to something by r', which we have held also equivalent to 'x's being the adjunct of r'. So we cannot use the same concept, viz., the definiendum itself, as a part of our definiens.

The Naiyāyikas actually suggested two different ways of solving the problem. The above procedure has revealed that the concept adjunct-hood cannot be assimilated into the concept superstratum-hood (*ādheyatā*), because the cases of non-occurrence-exacting relation will have to be considered. We can take adjunct-hood, in a spirit perhaps comparable to that of some modern philosophers,[8] to be an independent type of *svarūpa* relation — a concept that is not further analyzable. Such a concept is to be accepted on pragmatic grounds only. For instance, we do use such expressions as 'the conjunction s of a pot to the ground', but not 'the conjunction s of ground to the pot' in the same context. Thus the concept adjunct-hood can be construed simply as a semantic concept that can justify the use of the genitive 'of' with 'pot' in the object-language. Similarly, subjunct-hood can be construed as merely a semantic concept that can justify the use of the Sanskrit locative case with *bhūtala* 'ground', or the use of 'in' or 'on' in English. But when ontological questions are raised, we can describe these concepts as cases of some *svarūpa* relation or other, so that ontologically they should not be held as different from the adjunct pot or the subjunct ground, as the case may be.

§ **8.6** The following remarks on the general nature of the traditional ontology of the Nyāya-Vaiśeṣika school may be helpful. The traditional Vaiśeṣika school tried to map the phenomenal world of experience with the help of six or seven fundamental categories. The epistemological thesis that supplied the basis of their ontology was:

"All that are reals are knowable (*jñeya*) and namable (*abhidheya*)."

The thesis was sometimes misconstrued to state that all that are known are reals. But apart from this, the Naiyāyikas, in later days, always tried to analyze all objects of cognition in such a way that they could be reduced to some fundamental category. Although some Naiyāyikas such as Raghunātha wanted to reshuffle the categories, since the rigid system presented almost insuperable difficulties, the new school worked on the whole within the framework of the traditional categories,

[8] Although I describe this attitude of Navya-nyāya as comparable to that of some modern philosophers, I do not overlook the fact that they arrived at it by reasons peculiar to their own history. Since the traditional Nyāya-Vaiśeṣika school accepted a scheme of six (or seven) types of fundamental categories, the Naiyāyikas were forced to explain any irreducible, unanalyzable concept they came across as a *svarūpa* relation in order to avoid further hypostasis of relation. The result, however, seems to me similar to a modern philosopher's allowing the use of expressions like 'meaningful' or 'significant' since they are useful predicates but proposing that they not be further analyzed, so that, for example, one cannot take 'meaning' to be a separate entity. Note this attitude in Quine's proposal in *From a Logical Point of View*, pp. 11 f.

and consequently kept trying to adjust its logical theories to the traditional scheme. This feature of Navya-nyāya is in a way reminiscent of Aristotle's postulate of categories in his *Organon*.[9] In the jargon of modern logic, we can describe the scheme of seven categories as the seven fundamental predicates that the Naiyāyikas asserted as being true of the individuals that constituted their phenomenal world. Other predicates of any philosophic importance should, according to them, be analyzed in such a way that the components of such analysis could be brought under the one or the other of these seven fundamental predicates or "categorial" predicates. Whenever they were faced with some unanalyzable and apparently irreducible predicate-concept, they sought to parse it away as an *akhaṇḍa-upādhi* (unanalyzable imposed property) which is predicable of some individual but does not itself constitute a separate fundamental category. In other words, such an imposed property can very well be said to characterize some individual or other but does not become a separate entity by *hypostatic abstraction*[10] over and beyond the individual itself. They also parsed the tie connecting that property to the individual as a kind of *svarūpa* or self-linking relation. Sometimes they were also led to construe the said predicate-concept or imposed property itself as an independent type of *svarūpa* relation, and they asserted that a *svarūpa* relation by definition does not involve any ontological commitment (§§ 4.8 and 4.9).

There is another way of explaining the categories. Kaṇāda categorized the elementary questions of philosophic importance that can be asked about the objects of our experience. To each such question he supplied, perhaps from grammatical writings, a range of possible answering-terms, one of which will, in general, be true and the rest false of the object concerned. Terms satisfying the same interrogative were then said to be of the same category; terms satisfying different interrogatives were of different categories. But Kaṇāda's inventory should be credited only as far as it goes. It simplifies our discussions and analyses of the world of experience to a great extent. But there may be many criticisms of it and alternative suggestions. Our talk of "fundamental" concepts may be very vague and misleading. Why should calling an object 'a pot' be considered *less* fundamental than calling it 'a substance', and not the other way around? As opposed to the elegant genus-species relation, which is very useful in some logical theories, the other alternative might also be plausible. Or, to resort to more pertinent questions: Is pleasure to be analyzed as absence of pain, or pain as absence of pleasure? Is darkness absence of light, or light absence of darkness? Which alternative is to be considered as *more* fundamental? And why? This may sound like sophistry, but it raises a basic problem, which I shall not discuss here. My point will be taken from what follows.

In explaining our cognitions as well as our speech behavior (*vyavahāra*) with regard to certain facts we use some concepts to simplify and regularize our method of explanation. Our talk about adjunct-hood or subjunct-hood or counterpositiveness is not unrewarding or useless. We have seen it to be useful, according to

[9] *Organon*, lb25–27 (*Basic Works*, p. 8).

[10] See § 4.8, note 28.

Nyāya, at least for an elegant *semantical* analysis of expressions like 'the relation r of x', 'the relation r which something bears to y', and "there is an absence of x in y." The above-mentioned relational abstracts can be viewed as merely semantic concepts. They may be taken to be the semantic correlates of such prepositions as 'of', 'in', or 'to' in the above expressions. The concepts superstratum-hood and substratum-hood can also be similarly explained.[11] And this will not involve any further ontological commitment.

§ **8.7** Raghunātha's criticism of the traditional Vaiśeṣika categories makes an interesting study. He had no scruple about construing more terms, no matter how abstract or how much higher in the hierarchy of abstraction they might be, as separate categories. It has been asserted that adjunct-hood (or subjunct-hood) can also be regarded as a separate category. It can be said to be true of specific individuals determined by different adjunct entities and different relations. And the common property of such individuals is the next higher abstraction, adjunct-hood-ness (*pratiyogitātva*).

Such criticism can be explained in the following way. If we take adjunct-hood as a function ϕ of two variables x and r, where r ranges over relations only and x ranges over anything, so that the value of ϕ is determined by the values of these two variables, then, in order to characterize the values of that function ϕ with a common consecutive property, we ascend to the next higher level of abstraction to get adjunct-hood-ness. We can interpret this procedure of finding a consecutive character (*anugata-dharma*)[12] as an attempt of the Naiyāyikas to specify the domain of the individuals that are to be taken as the values of the function ϕ.

There has been some useful employment in Navya-nyāya of the concept adjunct-hood in other contexts, of which the manipulation of the universal quantification deserves special mention. I shall discuss it in the next chapter. It may also be noted that in the *Siddhāntalakṣaṇa-dīdhiti* Raghunātha finally explains the significance of the term "*pratiyogy-asāmānādhikaraṇya*" in Gaṅgeśa's definition of *vyāpti* (pervasion) with the help of these two concepts, viz., relational adjunct-hood and relational subjunct-hood.[13]

[11] Thus Jagadīśa in *Siddhāntalakṣaṇa* notes in brief as follows: "*saṃyogaḥ parvate vahneḥ sambandho na tu vahnau parvatasya ityādi-pratītyā hi kiñcit-pratiyogika-kiñcid-anuyogika-sambandhatvam anubhava-siddhaṃ kutracid-eva saṃyogādau na tu sarvatra; tac-ca svarūpa-sambandha-viśeṣo'tirikto vety anyad etat,*" *TCDJ*, p. 250.

[12] See § 10.3, and also Chapter 14, Notes to passage 38.

[13] "*Sādhyatāvacchedaka-sambandha-sāmānye nirukta-pratiyogi-pratiyogikatva-hetvadhikaraṇībhūta-yat-kiñcid-vyaktyanuyogikatva-sāmānyobhayābhāvasya vivakṣitatvāt,*" *Dīdhiti*, *TCDJ*, p. 248. On these lines of Raghunātha, Jagadīśa comments as follows: "*Tathā ca sādhyatāvacchedaka-sambandha-sāmānye yādṛśa-pratiyogitāvacchedakāvacchinna-pratiyogikatva-hetvadhikaraṇībhūta-yat-kiñcid-vyakty-anuyogikatva-sāmānyobhayābhāvas tādṛśa-pratiyogitānavacchedakībhūta-sādhyatā-vacchedakāvacchinna-sāmānādhikaraṇyaṃ vyāptir ity arthaḥ.*" *TCDJ*, p. 248.

9

THE LIMITORS AND QUANTIFICATIONAL LOGIC

§ **9.1** The concept of locus, as well as the use of the locative case in Sanskrit, plays an important role, as we have already seen, in shaping the Navya-nyāya analysis of a cognition or a sentence. Historically, the ordinary use of *avacchedaka* (delimitor or limitor) was first connected with the concept of locus. Consider the following sentences:

(1) "There is oil in sesame seeds (*tileṣu tailam*)."

(2) "There is fire on a mountain (*parvate vahniḥ*)."

These two can be rephrased in Navya-nyāya language as follows:

(3) "Sesame seeds are a locus of oil (or, oily-ness)."

(4) "A mountain is a locus of fire (or, fiery-ness)."

Owing to the structural similarity of (3) and (4), one may formalize them using the open sentence:

(5) "x is a locus of y," or, "x has y."

But such a formalization leads to inconsistencies. The negation of (5) will be "It is not the case that x is a locus of y," which can be translated, according to the Nyāya convention, as:

(6) "x is a locus of an absence of y, i.e., $\sim y$."

Now, our above procedure requires that (5) and (6) be contradictory to each other in the sense that, for any value of x and y, if one holds true, the other will not. It can be easily seen that if x takes sesame seeds as value and y takes oil (or should we say oily-ness?) as value, then the contradiction holds. But if, on the other hand, x takes a mountain as value and y takes fire (or, better, a body of fire) as value, the contradiction does not hold. In other words, the mountain can be a locus of fire as well as of the absence of fire. This shows that something is faulty in the formalization of (1) and (2) as (5). The sense of the two-place predicate 'locus' used in (3) is different from that used in (4). The Grammarians noted this distinction by naming the first a pervasive (*abhivyāpaka*) locus and the second a partitive (*aikadeśika*) locus.[1]

[1] Compare Bhartṛhari, *Vākyapadīya*, chap. iii, "Adhikaraṇādhikāra," especially verses 2 and 3. See also Helārāja's commentary, pp. 277 ff. The example of oil and sesame seeds, which was used by the Sanskrit grammarians, is rather misleading. One might argue that sesame seeds might be a locus of oil and also of absence of oil if the oil particles are small enough; i.e., the whole situation could be analogous to the fire-mountain situation. Sanskrit grammarians were sometimes aware

One may note that a pervasive locus is said to have or possess properties that are said to be of "pervasive occurrence" (*vyāpya-vṛtti dharma*) and a partitive locus is said to have or possess properties that are said to be of "nonpervasive occurrence" (*avyāpya-vṛtti dharma*). Thus cow-ness is said to occur pervasively in cows in the sense that in not a single cow is there an absence of that property. (See also § 6.3.)

While maintaining the formal relation between (5) and (6), Navya-nyāya avoids the above inconsistency by modifying its rephrasing of (2) as follows:

(7) "The mountain as delimited by a (particular) slope, or the middle part (i.e., as limited by part s_1), is a locus of a body of fire" ("*nitambāvacchedena parvate vahniḥ*").[2]

When translated into form (7), (4) is not assimilable along with (3) into (5), because (3) and (7) do not have structural similarity. Thus, by using the concept of limitor, Navya-nyāya marks off a partitive locus. It can easily be seen that limitors in such cases are merely parts, i.e., spatial constituents of the locus.[3]

§ **9.2** The notion of locus is extended in the later Nyāya to include temporal locus as well. A physical body is considered in Navya-nyāya as having a temporal stretch just as it has spatial stretch. Time in the sense of *mahākāla* is endless and eternal. But the portion of time covered by the duration of some physical body may be regarded as 'time' in a secondary sense (*kālopādhi*). This is merely an application of the general principle of Nyāya regarding time, which we have already mentioned in § 4.11. Such time segments constitute the temporal span of ordinary objects. Thus, a mango may be green at time t_1 and red at time t_2, when it is ripe. Nyāya can treat the mango as a locus of both the colors *green* and *red* without inconsistency by using the following formalized language:

(8) "x as limited by time t_1 is a locus of y."

(9) "x as limited by time t_2 is a locus of $\sim y$."

Here both (8) and (9) will hold when x takes a mango as its value, and y and $\sim y$ take red-color and absence of red-color as their respective values.[4]

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of these misgivings. Thus a safe example that was also coined by them was: Brahman is the locus of all beings. A more mundane example would be: A cow is a locus of cow-ness.

[2] Compare Jagadīśa: "*tathā dhūmavaty api viraho dahanasya, iha parvate nitambe hutāśano na śikhara iti pratīteḥ . . .*," *TCDJ*, p. 33. See also § 5.2, examples (10) and (11).

[3] This was the older notion of *avacchedaka* or limitor. And this is also quite common in Navya-nyāya, as is evident from such uses as "*śākhāvacchedena vṛkṣaḥ kapisaṃyogī, na tu mūlāvacchedena.*" Also the sentence "*iha parvate nitambe vahniḥ, na tu śikhare*" ("There is fire on this mountain on the slope, not on the top") is analyzed as "*nitambāvacchinnaḥ parvato vahnimān, na tu śikharāvacchinna-parvataḥ*" ("The mountain as limited by its slope is fiery, the mountain as limited by its top is not fiery").

[4] This notion of limitor is evidently related to the first one. Navya-nyāya uses the following sentences as not incompatible:

(a) "*Ghaṭo gandhavān*" ("A pot has smell").

(b) "*Utpattikālāvacchinno ghaṭo gandhābhāvavān*" ("A pot as limited by its production-moment has no smell").

Also sentences like "*idānīṃ parvate vahnir nāsti*" ("There is no fire at this time on the mountain") are analyzed as "*etatkālāvacchinnaḥ parvato vahnyabhāvavān*" ("The mountain as limited by this moment has no fire").

§ 9.3 A third use of limitors was also mentioned by Raghunātha. He reversed the procedure discussed above. In the cognition

(10) "There is the cow *a* in the courtyard now, i.e., at this time,"

the word denoting the time calibration is used in the locative case. Nyāya derives from this that such a time calibration, say t_1, can be treated as a locus (a temporal locus, to be sure) of the entity *a*. But at the same time the cow *a* is absent from the field. Thus the following cognition also holds:

(11) "There is absence of cow *a* in the field *now*."

Thus we can again construct two contradictory statements, e.g., "t_1 is a locus of *a*" and "t_1 is a locus of $\sim a$." Such a contradiction arises because Nyāya takes a particular time *t* to be the temporal locus of some object *a* which actually occurs at *t* in some spatial locus *s*, i.e., in some object *s* occupying some space. To avoid difficulty in such a procedure, Nyāya refers to the spatial location of *a* as the limitor of the temporal locus *t*. Thus, using the concept of limitor, we can write the following two statements, the (truth-functional) conjunction of which will be consistent:

(12) "t_1 as limited by s_1 is a locus of *a*."

(13) "t_1 as limited by s_2 is a locus of $\sim a$."

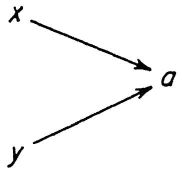
Limitors s_1 and s_2 are nothing but the different spatial loci of ordinary construction. The apparent oddity of (12) and (13) can be explained by the fact that time calibrations are treated by Raghunātha almost on a par with space calibrations.[5]

§ 9.4 More important in Navya-nyāya than the foregoing is the use of limitors in connection with what Ingalls has called "relational abstracts." Words like 'locus', 'qualifier', 'father', and 'counterpositive' are usually called relative terms. They can also be taken as fragments of the description of some relation or other,[6] e.g., 'is the locus of', 'is the father of'. By substantivizing such relations, we get relational abstracts, i.e., the terms 'locus-hood' (*ādhāratā*), 'qualifier-ness' (*prakāratā*), 'father-hood' (*pitṛtva*), etc. (see § 4.1).

As I have already noted, these entities in Navya-nyāya are treated neither as universals in the sense of repeatable forms of an entity nor as ordinary abstract properties like humanity. They are regarded as particulars peculiar to each occasion. On each occasion their conditioners (*nirūpaka*) or adjuncts (*pratiyogin*) as well as their residences or loci should be specified. Given "*x* is a locus of *y*," the relational abstract locus-hood can be described as being resident in *x* and conditioned by *y* (see § 4.3). We can represent the formal structure of a particular relational abstract as follows:

[5] See Raghunātha, "*deśe kālasyeva kāle'pi deśasyāvacchedakatvāt,*" *TCDJ*, p. 227; compare also Jagadīśa's commentary on this line, especially the following remark: "*tathā cānubhava eva deśasya kālavṛttitāvacchedakatve mānam,*" *TCDJ*, p. 227. Jagadīśa clarifies the apparent oddity by supplying "*kālavṛttitāvacchedaka.*" Compare also Jagadīśa's remark in the "*Vyadhikaraṇa*" section of *TCDJ*: "*deśe vṛttau kālasyeva kāle vṛttau deśasyāpy avacchedakatvānubhavāt, ekaśeṣasya kartum aśakyatvāt,*" p. 116. But the apparent oddity can be easily dispelled if we keep in mind that it has been proposed by some (e.g., Raghunātha) that *deśa* (space) and *kāla* (time) be treated in a similar manner.

[6] Ingalls, *Materials*, pp. 44–45.



Here 'x', 'y', and 'a' are variables that take $x_1, x_2 \ldots ; y_1, y_2 \ldots ;$ and $a_1, a_2 \ldots$ as values, respectively. But one restriction is necessary. Here $a_1, a_2 \ldots$ must be relational abstracts of different types, e.g., locus-hood and father-hood. The upper arrow indicates that the determination of a is brought about, on the one hand, by a's occurrence or residence in x. The lower arrow indicates that a is also determined by its conditioner y. Now, with reference to our example of mountain and fire, the above matrix will read as 'the locus-hood resident in a mountain and conditioned by a body of fire'. I am aware of the awkwardness of the restriction that a should range over the domain of relational abstracts of specific types; but the above matrix seems to be illuminating insofar as the Nyāya formulation of relational abstracts is concerned.

As intensional abstractions, the relational abstracts faced the problem of individuation. Navya-nyāya ruled that relational abstracts of the type a_1 (say, *adhikaraṇatā*) resident in the same entity x_1 but conditioned by distinct entities were distinct, and vice versa. Similarly, relational abstracts of unlike types, although resident in the same entity and conditioned by the same entity, were distinct (see also § 8.4).

As intensional abstractions, the relational abstracts also faced the problem of "referential opacity." [7] The Nyāya position in this connection can be checked by following the method used in developing the Frege-Church theory of sense and denotation.[8] I shall expound this by using Russell's classic example.[9] King George IV wanted to know whether Scott, the author of *Ivanhoe* (to be abbreviated as *AI*), was the author of *Waverley* (*AW*). We can write this as follows:

(14) "King George IV wanted to know whether *AI* wrote *Waverley*."

But although $AI = AW$, if we substitute *AW* for *AI* in (14), we falsify the proposition. The king did not want to know whether the author of *Waverley* wrote *Waverley*. This shows that the substitutivity test for identity fails here. To avoid such difficulties, Navya-nyāya would use the notion of limitors and relational abstracts. Thus (14) would be analyzed by them as

(15) "King George IV wanted to know whether locus-hood limited by *AI*-ness occurs in the object that wrote *Waverley*."

Another way of analyzing (14) is

(16) "King George IV wanted to know whether the locus-hood in the object that has *AI*-ness is limited by *AW*-ness."

Thus the problem of substitutivity of identity is avoided, because although

[7] Quine, *From a Logical Point of View*, pp. 142–159; see also Quine, *Word and Object*, pp. 144 f.

[8] See § 5.1, especially note 3.

[9] See § 5.1, note 2.

$AI = AW$, 'AI-ness' and 'AW-ness' are names for distinct abstract properties. Just as I have used 'AI-ness' and 'AW-ness' as abstractions from the descriptive phrases 'the author of Ivanhoe' and 'the author of *Waverley*', so in Sanskrit *tva*-suffixed terms are usually formed from descriptive phrases under such conditions.

A few words on the nature of *tva*-suffixed terms in Sanskrit may be in order. Although the singular terms 'the author of *Waverley*' and 'the author of *Ivanhoe*' denote the same entity, the semantical content in the first case may be distinguished from the second. That the semantical content differs is clearly evidenced by the way they behave when we derive *tva*-suffixed terms from them. Thus AI-ness and AW-ness are distinct properties, and consequently the locus-hood limited by AI-ness is distinct from that limited by AW-ness. The intensional content of AI-ness and AW-ness can be stated, following the Nyāya convention, as 'a causeness conditioned by the effect-hood resident in *Ivanhoe*' (*Ivanhoe-niṣṭha-janyatā-nirūpita-janakatā*) and 'a causeness conditioned by the effect-hood resident in *Waverley*' (*Waverley-niṣṭha-janyatā-nirūpita-janakatā*). This clearly shows that they are not isomorphic. Sometimes Navya-nyāya asserts that even a relational abstract of type a_1 limited by humanity, say, is not identical with a relational abstract of type a_1 limited by animality and by rationality, although it may be that by definition "humanity = animality plus rationality." This reveals the need for the strictest condition for the substitutivity principle of identity. The content of the intensional property 'a qualifier-ness limited by humanity' is distinct from the content of the property 'a qualifier-ness limited by animality and rationality.'

The kind of limitor found in (15) is called *niṣṭhatva-sambandhāvacchinna*, while that in (16) is called *nirūpitatva-sambandhāvacchinna*.[10] Note that the first limitor is merely a property of x in the above diagram, while the second is a property of y. In general we can state that, depending upon the intension of the whole sentence, a relational abstract may be said to be limited by any property of either x or y, i.e., either its locus or its conditioner. And each of such limitors serves to individuate a relational abstract from other abstract properties.

From another point of view the notion of limitor is mostly dependent upon our qualificative cognition of the object or objects concerned. Consider that a blue cup lies in front of me. The cognition that I shall have may take one or another of the following forms:

(17) "The cup is blue."
(18) "The utensil is blue."
(19) "The cup is colored."
(20) "The substance is blue."
(21) "The substance is colored."

In all such cases, Nyāya calls the subject the 'qualificand' and the property derived from the adjective in the predicate the 'qualifier'. It is evident, from the point of view of the objects involved, that the above five cognitions cannot be

[10] See Ingalls, *Materials*, p. 50.

distinguished from each other, because the objects are the same in each case, i.e., a particular blue cup. Nyāya says that these cognitions can be distinguished on the ground that the relational abstract qualificand-ness as well as qualifier-ness varies in each case. But the qualificand-ness (or the qualifier-ness) in each case resides in the same entity, viz., the cup (or the property blue color), and is conditioned by the same entity, viz., the property blue-color (or the cup). So they cannot be distinguished from the point of view of their loci or conditioners. But they must be distinguished from the point of view of their limitors. Thus, the qualificand-ness is said to be limited by cup-ness in (17) and (19), by utensil-ness in (18), and by substance-ness in (20) and (21). Similarly, the qualifier-ness is said to be limited by blue-ness in (17), (18), and (20), and by color-ness in (19) and (21). For stylistic purpose, Nyāya says that the qualifier blue-color is also limited by blue-ness or that the qualificand cup is also limited by cup-ness. Now, since the combination varies in each of the above cases, each such cognition is distinct from the other. Note that here I have spoken of limitors of the type used in (15), i.e., of the *niṣṭhatva-sambandhāvacchinna* type. The other type can be treated similarly.

We have already noted that the original idea of limitor-ship was related to the notion of a whole locus and its constituent parts. Here too one may trace the extended notion of locus and its constituents at work. Ordinary properties like cup-ness or cow-ness, for example, may be viewed as the constituents of their loci like the cup or the cow, and when such a cup or a cow is regarded as a locus of some relational abstract, say, qualifier-ness, such a relational abstract is said to be limited by one or another "constituent" of the locus cow or cup, i.e., one or the other ordinary property cow-ness or cup-ness of such locus cow or cup.

It may also be noted that to describe a relational abstract, say counterpositive-ness, in this way as delimited by an ordinary abstract, say pot-ness, amounts, in the majority of cases, to asserting the relational abstract to be equipollent (*anyūnānatirikta-vṛtti*) with the corresponding ordinary abstract. This suggests that ontologically they are indistinguishable. Thus if pot-ness is said to be a limitor of a counterpositive-ness, then such a counterpositive-ness is sometimes asserted to be indistinguishable from pot-ness. In different contexts the concept of limitor-ship is explained in any one of the following ways:

(i) Limitor-ship is a *svarūpa* relation.

(ii) A limitor is not narrower in extension than the limited property, i.e., the relational abstract of which it is the limitor. (Thus a limitor is *anyūna-vṛtti* 'that which occurs in no less'.)

(iii) A limitor is neither wider nor narrower in extension than the limited property. (Thus a limitor is *anyūnānatirikta-vṛtti* 'that which occurs in neither less nor more'.)

(iv) A limitor is not wider in extension than the limited property. (Thus a limitor is *anatirikta-vṛtti* 'that which occurs in no more'.)

Alternatives (i) and (iv) were largely favored in many contexts by Raghunātha.[11]

[11] See Raghunātha's *Avacchedakatva-nirukti* in *TCDJ*, pp. 257–283.

§ **9.5** A pot becomes occurrent through some relation like conjunction or inherence, or it may become a qualifier through any one of these relations. Thus, such relational abstracts as qualifier-ness, counterpositive-ness, and adjunct-hood are also said to be limited by some such particular relation.[12] To define the identity of a relational abstract in such cases, we must specify not only the limiting property, i.e., the limitor, but also the limiting relation. This relation is none other than the particular relation that relates or is supposed to relate the qualifier or the counterpositive or the adjunct, as the case may be, to the locus or subjunct. Note that relational abstracts of the same type, say qualifier-ness, which have the same limiting property but are limited by varying limiting relations, were also ruled to be distinct by Nyāya.

The importance of using the notion of a limiting relation will be appreciated from the following consideration. We know that the following two statements hold:

(22) "There is fire conjoined (*saṃyukta*) to the mountain *m*."

(23) "There is no fire inherent (*samaveta*) in the mountain *m*."

Ordinarily these two can be translated as:

(24) "*m* has a qualifier-ness *limited* by fire-ness."

(25) "*m* does not have a qualifier-ness limited by fire-ness."

In such an analysis, (24) becomes formally contradictory to (25), so that they cannot both be true. But this is obviously misleading because (22) and (23) can both be true at the same time. Thus, by introducing the notion of the limiting relation, Navya-nyāya avoids the difficulty and analyzes (22) and (23) as follows:

(26) "*m* has a qualifier-ness limited by fire-ness and also by the relation of conjunction."

(27) "*m* does not have a qualifier-ness that is limited by fire-ness as well as by the relation of inherence."

Although the limiting property, fire-ness, is the same here, the limiting relations are different, and consequently the limited relational abstract qualifier-ness is different in each case.

§ **9.6** In traditional Western logic a proposition is usually stated in a form from which we can decide whether it is a universal or a particular proposition. To use the term of the schoolmen, the 'quantity' of a proposition is clearly expressed in the following paradigmatic forms:

(28) "All men are mortal."

(29) "Some men are mortal."

In mathematical logic universal quantifier and an existential quantifier are used to represent (28) and (29) as:

(30) "$(x)(x \text{ is a man} \supset x \text{ is mortal})$."

(31) "$(\exists x)(x \text{ is a man} \cdot x \text{ is mortal})$."

In Navya-nyāya a proposition is generally written as follows:

[12] Note that no such notion of a limiting relation is involved when x (a mountain, a pot, etc.) is supposed to be a locus or a substratum or a qualificand of something. This is so because the question of occurrence, etc., does not arise in the case of a locus itself.

(32) "Mountain possess(es) fire" (*parvato vahnimān*).

Here, in translating the Sanskrit proposition into English, we have taken some liberty with English grammar in order to illustrate our point. Since no article, or to use Johnson's term, no "applicative" [13] is attached to the subject 'mountain', it is left ambiguous whether (32) is a universal proposition or a particular one, in other words, whether it is proper to use a universal operator or an existential operator to represent (32) in quantificational logic. Sanskrit expression allows this ambiguity, so that in each of these cases it is pertinent to ask whether fire (or, the occurrence of fire) is predicated of all mountains or some indefinite mountain. If (32) is about some indefinite mountain, then it can be translated with an existential operator in quantificational logic, and in this case (32) may be a true proposition. But if it is about all mountains, then we need a universal operator, in which case it is obviously false. A Navya-naiyāyika frames the above question by using the following technical language:

> "*kim atra pakṣatāvacchedakāvacchedena* (*uddeśyatāvacchedakāvacchedena*) *sādhyatvam pakṣatāvacchedaka-sāmānādhikaraṇyena vā?* (Is the assertion about the predicate's[14] being limited by the limitor of subject-ness, or is it about the predicate's being concurrent with the limitor of subject-ness?)"

The above question can better be treated as a schema or a diagram for a question. Thus, the expression "the limitor of subject-ness" should be regarded as a schema for a descriptive phrase which with reference to the present context denotes the property mountain-ness (*parvatatva*). The convention, already noted, is this: When a (e.g., a mountain or a pot) is described or spoken of as the subject of a proposition, the expression "the limitor of subject-ness" in connection with such a proposition will denote or will purport to denote the property a-ness (e.g., mountain-ness or pot-ness). Thus with reference to (32) the above question should be read as follows: Is the occurrence of fire asserted to be limited by mountain-ness (that is, is it asserted to occur wherever mountain-ness occurs), or is fire asserted to occur in some locus where mountain-ness occurs? Now, since mountain-ness is a property which by definition occurs in all and only those objects that are called 'mountain', the above question comes to mean in ordinary language: is fire asserted to occur in all mountains or in some mountain? It is obvious that, if the first alternative is accepted, (32) can be interpreted as a universal proposition. If the second alternative is accepted, it becomes a particular proposition.

§ 9.7 In the above, I have talked about translation (in a somewhat loose sense) of the Navya-nyāya propositions into quantificational logic. Care should be taken, however, to distinguish between the following translations:

(33) $(\exists x)(x$ is a mountain $\cdot$ x is fiery$)$.

(34) $(\exists x)(x \in \alpha \cdot x \in \beta)$, where α is the class of all loci of mountain-ness, and β is the class of all loci of fire, i.e., of all objects x such that x has fire in or on it.

[13] See W. E. Johnson, *Logic*, Part I, chap. vii, p. 97.

[14] 'Predicate' in this sense is slightly different from 'predicate' in its current sense in modern mathematical logic. Thus in a proposition "John is a man," neither 'man' nor 'is a man' but 'humanity' is to be regarded as the predicate according to this sense.

Navya-nyāya generally speaks in terms of a locus and of properties occurring in that locus. Hence, (34) is perhaps a more faithful translation of a Navya-nyāya proposition. This implies simply that Navya-nyāya has a "vocabulary of predicates," to use an expression of modern mathematical logic, which consists of predicates like '. . . is a locus of property p_1' or '. . . has p_1' and not predicates like '. . . is a man' or '. . . is wise'. But such distinctions are trivial from the point of view of quantification theory as long as we do not quantify over the class variables like α or β. I shall proceed further along this line. The commonest form of Nyāya inference is stated as: "Everything that has smoke has fire; this is a mountain, and it has smoke (on it); therefore it has fire." I shall represent this inference in quantification theory by using the deductive technique developed by Quine in his *Methods of Logic*, §§ 27–29. But, as before, I shall use the free-class variables 'α', 'β', and 'γ'. One may read 'α' as 'the class of loci of smoke', 'β' as 'the class of loci of fire', and 'γ' as 'the class of loci of mountain-ness' in the following formalization simply for the sake of convenience.

Deduction

*(1)	$(x)(x \in \alpha \,.\supset.\, x \in \beta)$	
**(2)	$(\exists x)(x \in \gamma \,.\, x \in \alpha)$	
**(3)	$x \in \alpha \,.\supset.\, x \in \beta$	(1) UI
**(4)	$x \in \gamma \,.\, x \in \alpha$	(2) EI, x
**(5)	$x \in \gamma \,.\, x \in \beta$	(3) (4) TF
**(6)	$(\exists x)(x \in \gamma \,.\, x \in \beta)$	(5) EG

Here the use of class variables has no significance, and schematic letters 'F', 'G', etc. for predicates in quantification theory could have been used without any difficulty. The Navya-nyāya definition of the pervasion (*vyāpti*) relation (traditionally called the relation of universal concomitance) is based on the fundamental relation of occurrence. To use modern terminology, the two-place predicate 'is pervaded by' can be defined in terms of the predicate 'occurs in', which may be taken, as I have already noted, to be "primitive" in some Navya-nyāya theories. Let us represent 'occurs in' by 'O', so that "Oxy" means "x occurs in y." We can also use the sign of negation, consisting of the prefix '–' applied to statements as wholes. Thus "$-Oxy$" means "x does *not* occur in y." Gaṅgeśa defines 'pervasion of x with y' in the *Pañcalakṣaṇī* of *TC* as 'nondeviation of x with respect to y', which is further explained as 'nonoccurrence of x in the locus of absence of y' (see Ingalls, *Materials*, p. 86). Thus, "x is pervaded by y" can be written using the above symbols as:

"$(z)(Oxz \supset Oyz)$"

i.e.,

"$-(\exists z)(Oxz \,.\, -Oyz)$."

This formulation is closer to the Nyāya version, although Nyāya does not use a word expressing a quantifier. Moreover, the symbol '$-Oyz$' presents a problem from the viewpoint of the Navya-nyāya system. Nyāya always interprets expressions of the form "–(x occurs in y)" or "x does *not* occur in y" as "an absence of x occurs in y." Let us use the symbol '$\sim a$' to stand for 'an absence of a', where a is any

entity. Now, Nyāya will require that we turn "$-Oxy$" into "$O \sim xy$." But some stipulation is necessary. The symbol '$\sim x$' will be considered meaningful when and only when x will range over the class of all properties p such that p occurs in some locus and does not occur in some locus, i.e., the class of all objects p such that $(\exists z)(Opz) \cdot (\exists r)(-Opr)$. Thus '$\sim x$' becomes a meaningless or empty symbol if x takes a universally present (*kevalānvayin*) property to be its value. In other words, if $(z)(Oxz)$, i.e., if $-(\exists z)(-Oxz)$, the symbol '$\sim x$' would be unmeaningful. This is exactly what is meant by Nyāya when it asserts that absence of an ever-present property like knowability (*jñeyatva*) is an unexampled or empty property (see § 11.8). Now, the definition of pervasion must be made universal so that it will be applicable even when y has ever-present properties like knowability or namability as its values. But in the above if we write, concurring with the Nyāya demand, the definition of pervasion as

$$-(\exists z)(Oxz \cdot O \sim yz),$$

it is obviously not universal, because it becomes a meaningless symbol when y has an ever-present property as its value. To avoid this difficulty, Gaṅgeśa suggests a different way of construing the definition in the *Siddhāntalakṣaṇa* of his *TC*. A simplified version of that definition will be 'pervasion of x with y' is 'x's concurrence with such a y as is not the counterpositive of an absence which occurs in the locus of x' (see "*hetuman-niṣṭha-virahāpratiyoginā sādhyena hetor aikādhikaraṇyaṃ vyāptir ucyate*," Viśvanātha, *Bhāṣāpariccheda*, verse 69).

It may be noted that by choosing to speak in terms of absence, occurrence, and locus, and not developing a system of quantifiers, Nyāya invited many logically important problems peculiar to its own system. A major part of the later developments in Navya-nyāya was concerned with these problems. Thus in the above, although I have used quantifiers to express the Nyāya definition of pervasion, the actual Nyāya statement does not contain any word for quantifiers. My symbolic translations are at best what is intended by the Nyāya definition. But to understand the Nyāya system properly it is well to see how and why the system faced such peculiar problems as it did face.

First, as already noted, we cannot speak of the absence of an ever-present property like knowability, because such an absence would not be a real object. Further, when we use the expression 'locus of pot' we do not specify whether the class of all loci of pot is intended or a particular locus of pot is intended. Similarly, when we say "The locus p has absence of pot," we do not specify whether the absence which p has is the same as what is intended by saying "for each thing x, if x is a pot then x does not occur in p" or the same as what is intended by saying "for something x, it is the case that x is a pot and x does not occur in p."

Navya-nyāya used the expedients of limitor-ship, counterpositive-ness, and other relational abstracts in order to avoid these ambiguities. Thus, to show that the class of all loci of pot is intended, Nyāya used the following abstract property, viz., *ghaṭatvāvacchinnādheyatā-nirūpitādhikaraṇatā* (the locus-hood which is conditioned by the superstratum-hood delimited by pot-ness), or, in short, the locus-hood delimited by pot-ness. This abstract property characterizes all loci of pot. Similarly, to imply that all pots are absent from p, Nyāya used the following

abstract property to qualify the absence in question, viz., *ghaṭatvāvacchinna-pratiyogitā* (a counterpositive-ness that is delimited by pot-ness). In this way, generality of statements was maintained. Thus, the commentators upon Gaṅgeśa suggested expansion of his definition of pervasion along this line so that the definition in question might be precise and faultless. It should also be noted that if the limitor of the relational abstract counterpositive-ness is only pot-ness, then the absence concerns all pots. If, however, the limitor includes both pot-ness and blue-color, then the absence concerns not all pots but only blue pots (see also § 10.3).

§ 9.8 Using quantifiers and the symbol "Oxy" for "x occurs in y," we can rewrite the definitions of limitor as suggested in (ii), (iii), and (iv) of § 9.4 in the following way. According to (ii), "x is a limitor of y" can be written as

"$-(\exists z)(Oyz \cdot -Oxz)$"

i.e., "$(z)(Oyz \supset Oxz)$."

According to (iii), "x is a limitor of y" can be written as

"$(z)(Oyz \equiv Oxz)$."

According to (iv), "x is a limitor of y" can be written as

"$-(\exists z)(Oxz \cdot -Oyz)$"

i.e., "$(z)(Oxz \supset Oyz)$."

It is evident that suggestion (i) of § 9.4 holds limitor-ship to be an unanalyzable relational property. But (ii), (iii), and (iv) hold that it is definable in terms of the "primitive" occurrence relation. One may also point out that such an occurrence relation is nothing but a blanket expression for different types of relation classed under the "occurrence-exacting" relation (see § 5.4).

10

CIRCULARITY, *LĀGHAVA* (PARSIMONY), AND *ANUGAMA* (CONSECUTIVE CHARACTER)

§10.1 Circularity is a well-known logical fallacy, which one should try to avoid in philosophical explanations. Circularity in a definition smuggles the definiendum into the definiens. Nyāya notes three different varieties of circularity and calls them (a) *ātmāśraya* 'self-dependence', (b) *anyonyāśraya* or *itaretarāśraya* 'mutual dependence', and (c) *cakraka* 'cyclical dependence'.

The general meaning of these terms is clear from their names. But I shall try to formulate their precise definitions according to some Naiyāyikas. Self-dependence takes place whenever we explain a concept by using the same concept in some way or other in our explanation. Nyāya defines it as follows:

D1: x is self-dependent *iff* x is explained as an object of some cognition which is dependent upon a cognition of x (*sva-graha-sāpekṣa-graha-viṣayatvam ātmāśrayatvam*).

Mutual dependence takes place when, in order to know a concept x we need to know another concept y, and at the same time in order to know y, we must know x. Thus the following definition is offered:

D2: x and y are mutually dependent *iff* x is explained as an object of cognition which is dependent upon a cognition of y and y in its turn is explained as an object of cognition which is dependent upon a cognition of x (*sva-graha-sāpekṣa-graha-sāpekṣa-graha-viṣayatvam anyonyāśrayatvam*).

In cyclical dependence the process is expanded. Thus:

D3: Cyclical dependence takes place *iff* x is explained as an object of cognition which is dependent on a cognition of y and y is explained as an object of cognition dependent on a cognition of z and z is explained an object of cognition dependent on a cognition of x (*sva-graha-sāpekṣa-graha-sāpekṣa-graha-sāpekṣa-graha-viṣayatvam cakrakatvam*).

Note that Nyāya defines these concepts in terms of *graha* or cognition. This cognition may be taken in a very general sense, however, so that it may include any philosophic explanation, definition, analysis, etc. Circularity, whenever exposed, weakens the force of the explanation and sometimes entirely vitiates its purpose. What should be especially deplored is psychological circularity, since it makes an understanding of the explanation impossible. This also justifies the Nyāya method

of defining circularity in terms of cognition. Logical circularity in a system is sometimes avoided by making some stipulation.

Circularity is sometimes related to another defect of a very serious nature, viz., *anavasthā* (regressus ad infinitum). But *anavasthā*, Nyāya asserts, is not always a defect. In certain cases of continuity or causal sequence, *anavasthā* has to be tolerated because it is well supported by our experience. For example, it is an idle question to ask which came first, the chicken or the egg. Nyāya says that this type of *anavasthā* is validated by experience (*"bījāṅkuravat prāmāṇikīyam anavasthā na mūlavyāghātāya kalpate"*). This does not do any harm to the commonsense view of cause and effect — the view that Nyāya endorses — namely, their relative priority and posteriority.

§ **10.2** Indian philosophers often appeal to the criterion of *lāghava* (simplicity or parsimony). If one can show that the opponent's theory presupposes more entities than are presupposed by one's own theory, one can claim victory by the criterion of simplicity. The same criterion holds if one can show that the rival theory is more involved or complicated than one's own, or if one can demonstrate that the rival theory is based on a greater number of hypotheses than one's own theory. This simplicity in Nyāya can also be regarded as a special case of the application of the general principle of parsimony, which William of Ockham enunciated as "entia non sunt multiplicanda praeter necessitatem." It directs that the least number of assumptions is to be made in our attempt to explain an ascertained fact.

§ **10.3** The doctrine of simplicity in Nyāya is also related to what is called the argument for an *anugama* or a consecutive character. The argument for a consecutive character is, in turn, related to the Nyāya doctrine of *sāmānya* or generic property. If several entities become a common subject of different discourses, it is always convenient, according to Nyāya, to find a common, consecutive attribute or property which should be present in *all and only* those entities, because in that case we will be able to refer to them generically as possessing that attribute. Epistemologically this question is connected with the formation of a notion or concept of such things. Thus Nyāya claims that a cognition of such a consecutive character is helpful in identifying all things bearing this supposed attribute.

Note also that Nyāya avoids using a universal quantifier like "all" or "every." [1] Thus, in presenting "lawlike" statements or general principles, Nyāya uses a common abstract property to refer to the class of some entities. With the help of a consecutive character Nyāya finds it easy to express general statements. Thus, the statement "All men are mortal" or "All men have mortality" is rephrased as "Humanity delimits the presence or possession of mortality." This can be further explained as "Humanity does not occur where there is no mortality." [2] Note that to be a limitor here is explained as not to occur in a locus where the limited

[1] See also § 9.6.

[2] "*Manuṣyatvāvacchedena maraṇaśīlatvam*"; this is further explained as "*manuṣyatvam maraṇaśīlatvānatiriktavṛtti*."

property does not occur (see § 9.4). Moreover, Nyāya uses a language of the "property-location" type.[3] The general trend in such a system is to refer to an entity not by using its name but by declaring it to be something that possesses such-and-such a property. Further, instead of saying 'everything that possesses *a*', Nyāya refers to all things possessing *a* by using the abstract locus-hood which is delimited by the property *a*-ness. Thus we see that search for a consecutive character was a necessity in that system. Such a consecutive character is sometimes identifiable with a generic property (*jāti*), which is accepted as a category (*padārtha*) in the Vaiśeṣika conceptual scheme, e.g., cow-ness or pot-ness. But otherwise it is regarded as an imposed property (*upādhi*).

The point to be stressed in this connection is this. The term expressing a consecutive character should be a "proper" term containing no blank or variable as its constituent. Perhaps we can clarify our meaning by using the notion of class logic. We call a sentence an "open sentence"[4] if it contains a free variable '*x*' in place of a name of an object. An open sentence is said to be true of various things and false of others. Thus an open sentence may be said to determine a class of objects. Nyāya claims that the consecutive character of a class of objects should be namable without using such an open sentence. To assert that the open sentence "*x* is a pot" determines the class of all pots is not enough for Nyāya. One must be able to mention the consecutive attribute without using any variable, e.g., potness.[5] See also passage 38 of Gaṅgeśa's *Abhāva-vāda* and the Notes thereto in Chapter 14 below.

§ 10.4 Gaṅgeśa devotes a chapter of his work to discussing the problem of a consecutive character in connection with the notion of *vyāpti* or the relation of pervasion.[6] Pervasion is defined by him as the concurrence of a probans (e.g., smoke) with such a probandum (e.g., fire) as is *never absent from* a locus of the probans. It is also defined as the concurrence of the probans with that probandum the locus of which is *never other than* a locus of the probans. The first formulation involves a *constant absence* of the probandum, while the latter involves a *mutual absence* of it. Gaṅgeśa argues that the relation of pervasion which involves a constant absence of the probandum is quite different from the relation of pervasion which involves a mutual absence of the probandum. But since we use the term *vyāpti* 'pervasion' in both cases, the question of finding a consecutive attribute becomes pertinent. Gaṅgeśa describes such an attribute as *anaupādhikatva* (the property of not possessing an *upādhi*),[7] where the notion of *upādhi* is to be understood from a different context.

[3] See § 2.9, note 33.

[4] See Quine, *Methods of Logic*, p. 90.

[5] Thus it is observed in *Nyāyakośa*, s.v. *anugama: "anugamaḥ anugatapravṛtti-nimittaṃ yathā sarveṣāṃ ghaṭānām anugamo ghaṭatvam"* (p. 22).

[6] "*Vyāptyanugamaprakaraṇa*," in *TC*. Gaṅgeśa begins: "*uktavyāptiprakāreṣv anyonyābhāvagarbhaiva vyāptir anumitihetur lāghavād/ ato nānanugamaḥ/ anaupādhikatvaṃ tallakṣaṇam*," *TCDG*, p. 737.

[7] This use of *upādhi* should not be confused with the use of *upādhi* in the sense of imposed property discussed before. This *upādhi* is technically defined as '*sādhyavyāpakatve sati sādhanāvyāpakatvam*', i.e., a property that pervades the probandum but not the probans.

Raghunātha discusses the problem of *anugama* in many places. For instance, while explaining Gaṅgeśa's definition of *anumāna* (inference), he discusses the problem of *anugama* between an *anvayavyāpti* (pervasion in presence) and a *vyatirekavyāpti* (pervasion in absence). He then states that the property common to them both is the 'attribute of being the object of a cognition which is contradictory to the cognition of deviation (*vyabhicāra*) of the probans with respect to the probandum.' [8] This property is shared by both, i.e., by a pervasion in presence and a pervasion in absence. In other words, a pervasion in general has this character. Also note that, when stated in the above fashion, the term expressing the attribute contains no blank or variable-place. Raghunātha resorted to a similar theory in the "*Vyāptyanugama*" section of *TCD*.[9]

§ **10.5** The later Naiyāyikas developed at greater length the theory of *anugama* in different places of their commentaries, *ṭippanīs*, and *kroḍapatras*. They usually talk of two different types of *anugama*, viz., *saṃsargamudrayā anugama* and *prakāramudrayā anugama* — a very complicated distinction, an explanation of which I will forego here. As far as the general structure of the method is concerned, I shall add the following remark. Suppose we have an open sentence "x is of incomplete occurrence (*avyāpyavṛtti*)," i.e., "x and the absence of x occur in the same locus." And suppose that this is true of a class α of *avyāpyavṛtti-vastu* (objects having incomplete occurrence). To say that the attribute common to all the members of the class is 'incomplete occurrence' (*avyāpyavṛttitva*) or, in other words, 'the property of x's having the same locus as that of the absence of x' is not illuminating so far as that property is concerned. For here too, in naming that supposed common property, we are using variables. Thus the said property becomes different each time, as the variable 'x' takes different objects as values. Nyāya uses the following trick to get rid of this variable. It expresses the common property simply as the property of being qualified by an absence (*abhāvaviśiṣṭatvam*). Note that this expression contains no variable. But the relation through which such an absence qualifies the object is explained as a conjunction of two relational abstracts, viz., x's being the counterpositive of such an absence and x's being concurrent with such an absence.[10] The trick lies here in throwing the

[8] "*Na ca vyatirekiṇy avyāptiḥ, vyabhicāradhī-virodhidhīviṣayatvenānvayavyatirekavyāptyor anugamāt/ bhavati hi dhūmasamānādhikaraṇātyantābhāvapratiyogivahnisamānādhikaraṇadhūmatve vahnyabhāvavyāpakībhūtābhāvapratiyogitve vā gṛhīte niyamato vahnivyabhicāradhīpratirodhaḥ,*" *TCDG*, pp. 50, 56. Note that *vyāpti* may be defined as nondeviation of probans and probandum. For certain technical reasons Gaṅgeśa discards this definition (see Ingalls, *Materials*, pp. 61–62, 83). But a cognition of *vyāpti* is always contradictory to a cognition of deviation (*vyabhicāra*). Thus Raghunātha asserts this feature as the necessary consecutive character of each instance of *vyāpti*. Note also that as a relation (or relational abstract) *vyāpti* (pervasion) should be construed in Nyāya as particular to each occasion. But an understanding of the consecutive character of different pervasion relations nevertheless simplifies our understanding of the notion of inference.

[9] "*Maivam, pratiyogyasamānādhikaraṇahetusamānādhikaraṇābhāvapratiyogitāvacchedakatvagrahavirodhigrahaviṣayatvena teṣāṃ tādṛśāvacchedakatvagrahavirodhitvena tadbuddhīnāṃ vānugamāt,*" *TCDG*, p. 743.

[10] "*Abhāvaviśiṣṭatvam avyāpyavṛttitvam, vaiśiṣṭyam ca svapratiyogitva-svasāmānādhikaraṇyobhayasambandhena.*"

variable-places into the fold of the relation or *saṃsarga* so that the common property itself can be expressed as a function of some abstracts which contain no blanks or variable-places. This type of *anugama* Nyāya calls *saṃsargamudrayā anugama.*[11]

[11] A good illustration of this can be found in *Gaṅgā*, the commentary of Śivadatta Miśra on Jagadīśa's *Vyadhikaraṇa*. See Śivadatta's definition of *vyadhikaraṇābhāva* on page 3.

11

ON NEGATION

§ **11.1** The problem of negation has perplexed philosophers of different ages. I wish here to discuss only those aspects of the problem that will be directly relevant to my final discussion of the treatment of negation and negative particles in Navya-nyāya.

In natural languages there are particles or expressions that are called negative, and statements involving them are sometimes classed as negative statements or statements expressing negation. But the philosophers' difficulties in explaining the negative statements can easily be seen. It is, after all, a "positive" (in some sense of the word) fact, so it is argued, that makes the sentence (i.e., the affirmative one) true, and the sentence informs us of neither more nor less than that positive fact. But when we get a true negative sentence like "The wall is not blue," we cannot explain it in that way, because it is often thought that the absence of a property or attribute is itself not a property, just as the absence of a thing is itself not a thing. The truth condition of the sentence "The wall is blue" is given, according to some philosophic traditions, by the fact that the property blue is possessed by the wall, which is denoted by the subject term, but the truth condition of the negative sentence "The wall is not blue" cannot be given in a like manner.

Arguing along this line, some philosophers have wondered how the truth of a statement in which some property is denied of some individual could be verified at all by a so-called positive fact that it is supposed to report. By saying that something is *not* so-and-so, how can we claim that we have given some characterization of that thing without making the bold assumption that things also have negative characters? Such an assumption may be disliked because we thereby seem to admit that a thing has an infinite number of characters, positive and negative. Again, by saying that something is *not* the case, how can we claim that we have given some useful (not trivial) information about what *is* the case? But that we do make such statements and that they are sometimes true has led some philosophers to think that there must be affirmative statements which are equivalent to them and which, in turn, faithfully describe the so-called positive fact, i.e., the fact that provides the truth condition of both such equivalent statements. Even then one will object that the negative statements are uninformative and

fail in their duty insofar as they do not report or state the facts which make them true.

One can counter the above arguments in many ways. One can reasonably ask for a satisfactory explanation of the notion of positive fact upon which the above theorists mainly base their argument. One can also point out that, although the negative statement may not be informative in the way a statement about some positive character of the wall, e.g., "The wall is green," would be, nevertheless it says *something* about the wall. Or, in the words of A. J. Ayer, "To say that a description is relatively uninformative is not to say that it is not a description at all." [1] Moreover, it is perhaps tautologous to say that a negative statement does not report the positive fact which makes it true, because all that this may mean is that a negative is *not* an affirmative. For how can we be certain that a fact is positive unless it is reported by an affirmative statement? The general belief that reality presents only positive facts and no denial or negation can be shown to amount to some triviality of the form of "things are what they are." [2] The Naiyāyikas also argue that to say what a thing is not is itself a way of saying what it is. They argue further that it is not the special privilege of the so-called positive objects to be regarded as attributes or properties (i.e., *dharma* or qualifiers), but that the absence of such an object is to be regarded as another type of irreducible (*akhaṇḍa*) attribute or qualifier.[3]

§ 11.2 Before discussing the Indian background, I shall briefly describe some other aspects of the problem of negation. Negation has sometimes been construed as 'nonbeing' as opposed to 'being'. Thus Parmenides of ancient Greece rejected such a thesis as "Nonbeing is" as an impossibility or contradiction in terms (although he did not explicitly formulate the law of contradiction). As against this, the atomists Leucippus and Democritus argued that 'being' is in no way more necessary than 'nonbeing'. They contrasted the status of atoms as 'being' with that of space which may be construed as 'nonbeing', and they conceived of the universe as constituted by the atoms in space. Thus in their system both concepts were in a way necessary. Plato construed negation not as 'nonbeing' but as difference or diversity of being. For Plato, Difference was an *eidos*, an archetype. Some earlier Indian theorists held, as we shall see, almost in a similar vein, that without this entity of Difference it would be impossible to hold one thing to be different from another.[4]

§ 11.3 Aristotle transferred the problem from pure ontology to the realm of logic. Negation is not 'nonbeing' but is related to assertion. "An affirmation is a positive assertion of something about something, a denial is a negative assertion."

[1] A. J. Ayer, "Negation," *Philosophical Essays*, p. 47.

[2] *Ibid.*, p. 48.

[3] For arguments of this type see especially Jayanta, pp. 59–60. As I have already noted, terms like 'property' or 'attribute' are used here in a very loose sense, so that they can be taken as parallels of the Sanskrit term *dharma*. Thus, in our terminology, when bread is on the table, we can even describe that bread as a property, i.e., a *dharma* of that table.

[4] For somewhat similar arguments, see Kumārila, p. 474, verses 5–8, and Pārthasārathi Miśra's commentary thereon. See also the arguments in Chapter 14 below, passages 16–17.

Also "every affirmation has an opposite denial, similarly every denial an opposite affirmation." [5] Thus negation is described here by using the principles of contradiction and of the excluded middle. In modern logic, the negative particles are regarded as "logical words." It is customary to take the negative particle out and insert a negative sign before the whole sentence, so that all negative statements can have the form "not *p*." Then the formal truth condition of "not *p*" is given as follows: (a) " 'not *p*' is true *iff* '*p*' is false," and (b) " 'not *p*' is false *iff* '*p*' is true." Thus negation is defined here in terms of the logical words 'true' and 'false', i.e., in terms of truth values. But here also philosophers like Russell have found difficulties of another form. How can experience directly show that a statement *p* is false?[6] We may arrive at "*p* is false" inferentially from what we experience. But there too we are making use of a negative premise which is an intuitive generalization of the form "$(x)(Fx \supset -Gx)$" or a direct experience like "This is not white." Thus Russell was led to believe that there must be some negative "basic propositions." A basic proposition, according to Russell, is that "which arises on occasion of a perception, which is the evidence for its truth, and it has a form such that no two propositions having this form can be mutually inconsistent if derived from different percepts." [7]

§ 11.4 Logicians in the Hegelian tradition sometimes contended that negative statements are significant only insofar as they presuppose a corresponding attribution of a contrary or even contradictory property.[8] Thus "it is not blue" means, or at least presupposes, that it is either green or red or . . . etc. But under this theory one usually rejects what are called "infinite judgments" as unmeaningful and idle (e.g., statements like "Virtue is not square"). This view was supported by J. D. Mabbott in his essay "Negation," [9] and he described them as "Turkey carpet judgments" (using a simile of Macaulay's). Bosanquet suggested that every significant negation "A is not B" can be analyzed as "A is X, which excludes B" where X is an unknown property which excludes the property B.[10] Such an analysis, it seems to me, is too vague and makes everything dependent on the meaning of the term 'excludes'. The original problem is obscured by including the negative element in the notion of exclusion.

§ 11.5 Ryle[11] gave a helpful analysis of some negative statements. He agreed, however, to reject such negations as "Virtue is not square" as nonsense on the ground that they are not "genuine propositions," and he gave his own criterion for genuine propositions (pp. 83–84). But on the whole he argued in favor of the theory that there are negative propositions which "may be the expression of

[5] Aristotle, *De Interpretatione*, 17a25–26, 17a31–32 (*Basic Works*, p. 43).

[6] Bertrand Russell, *An Enquiry into Meaning and Truth*, p. 99.

[7] *Ibid.*, p. 174.

[8] "As we always speak and think within a general subject or universe of discourse, it follows that every denial substitutes some affirmation for the judgment which it denies." Bernard Bosanquet, *The Essentials of Logic*, lecture viii, section 2.

[9] G. Mabbott, "Negation," pp. 68 ff.

[10] Bosanquet, lecture viii, section 6, p. 135.

[11] G. Ryle, "Negation," pp. 80–96.

something." He proposed that some negative propositions may be taken as expressing otherness. Perhaps he came somewhat close to the view expressed in Plato's *Sophist* according to which 'not blue' may be construed as that which is different from the nature of blue-ness.[12] Ryle suggested that the sentence "The wall is not blue" should be analyzed as "The color of the wall is other than or different from blue." But he acknowledged that such an analysis might not be easily applicable to all genuine negations. As to the view that a negative proposition like "The wall is not blue" can be correlated to a disjunctive affirmation like "The wall is green or yellow or red . . . etc.," he remarked that both of these types would share some common character, i.e., they are both descriptions not directly of "the particulars but of the character of the particulars." But it would be wrong to say that one or the other of them is not "objective" or is uninformative in character.

The charge that the negative propositions are subjective may also be understood in different ways. To put it in the words of H. W. B. Joseph:[13] "In negative judgment I assert nothing real." It seems that there is nothing real to correspond to negative judgment. If all thoughts or thinking beings were destroyed, the wall would be still green. But that we utter sentences like "The wall is not blue" or "There is no bread on the table" is because one might suppose or believe that the wall was blue or that there was bread on the table. But this charge of subjectivism can be shown to be ill-conceived. Russell[14] has argued that even an affirmative judgment such as "There is bread on the table" is already considerably complicated. Like a negative judgment, it may also be an answer to a question, or it may even be the denial of the suggestion that there is no bread on the table. In logical inquiry, however, "Bread is there" has the same status as "Bread is not there." The former as well as the latter can be true or false. And the situation does not essentially change even if all thinking beings are destroyed.

But danger lies the other way. If we begin neglecting outside reality and concentrate our attention upon our judgments about it, then the door may be well open to a kind of subjective idealism. Thus modern logicians try to avoid any reference to the subjective activity of thinking and talk about the objective content[15] of a proposition. The Naiyāyikas, as we have seen before, are also interested in the objective content of a cognition, but they go a little further. They argue that if bread's presence can lead one to construe bread as a property (*dharma*) of the table, bread's absence may alike lead us to construe the bread-absence as a property of the table. There may be some fundamental difference between these two types of property, but so far as attribution is concerned the two cases perhaps do not differ essentially.

§ 11.6 It may also be argued that negative statements are subjective, i.e.,

[12] Plato, *The Sophist*, 257d: "Anything we call *not-beautiful* is *other* than the beautiful, and than nothing else."

[13] Joseph, *An Introduction to Logic*, chap. viii, p. 172.

[14] Russell, *An Enquiry into Meaning and Truth*, pp. 77–78.

[15] Thus Frege talked about proposition as the sense (*Sinn*) of a declarative sentence. See "Über Sinn und Bedeutung," especially p. 89, n. 5.

derivative in the sense that they involve acts of comparing concepts and making inferences rather than stating directly what is presented. But this can be countered by saying that even in an affirmation like "The wall is blue" the question of comparing concepts must arise. Thus, as some Buddhists will say, what is presented is but nonconstructed reality, and we judge with the concepts of wall and blue, i.e., we conceptually construct that what is presented is a wall and that it is blue. Here, however, we may enter into the well-known dispute about where perception ends and inference starts, or into the dispute about what is presented and how far we actually judge from what is presented. Apart from this, our point will be well taken if we can appreciate the following questions. If comparing of concepts does not make "The wall is blue" inferential or derivative, why should it be thought to do so in "The wall is not blue?" One may argue that cognition of the positive character of the wall, e.g., of its being green, puts one into an inferential process where through the implicit premise "What is green is not blue" we arrive at the negative statement "The wall is not blue." We can answer that in some hypothetical case, at least, conceived with a little ingenuity,[16] it may be possible that even without using or knowing the so-called positive character of the thing, and hence without using such an implicit premise, just by comparing the concepts that we acquire through our acquaintance with the world, we may arrive at the negative judgment "This is not blue." Nyāya, however, does not imply that nowhere in the negative judgment do we make an inference, but that our perceptual apparatus is itself sufficient to give both affirmation and denial as assertions, at least in certain obvious cases.

From another point of view one can establish the subjectivity of denial by saying that when one says, "Bread is not on the table," one asserts more than is warranted by the situation, for there is only an empty table. In reply, we suggest from the Nyāya point of view that the phrase 'empty table' is somewhat misleading here, for it is nothing but a blanket expression for describing a table without any bread or any butter or any napkin, and so on. The point is, however, that to explain just what is meant by a negative statement we need another negative expression, and that to explain the meaning of a negative statement in terms only of positive concepts seems impossible. Actually we describe the world of experience through various types of statements; the categorical affirmatives are one among many such types. And it becomes somewhat dogmatic to claim that they are the only one. It is only under a naive picture theory of meaning that one can claim that negatives are subjective because they contain elements that are not matched (in a very peculiar sense of matching, however) by reality. The question becomes crucial in this form: What is there — a table, or an empty table? We may say that it depends upon the context in which it is asked. But then the question is how far and how seriously can we talk of the context while talking about an ontological question? And one may as well say that there is no definite meta-

[16] Something parallel to A. J. Ayer's example of 'eulb-community' may be conceived for this purpose (see his "Negation," pp. 49–53). Thus at the initiation ceremony the person being taught the use of the word for blue may, just before the moment, make the statement "The thing presented is just not *eulb*."

physical principle that we must follow to make a table more ultimate than an "empty" table.

§ **11.7** Actually, Nyāya wants to go a step further. It practically denies that there should be any affirmative-negative dichotomy among judgments or statements. All determinate cognitions or judgmental cognitions (*savikalpa jñāna*), which can be very well regarded as the counterpart of statements, involve a qualification or an attribution, and such an attribution cannot be construed as either affirmative or negative. A declarative sentence in ordinary language which expresses such a judgmental cognition contains an assertive force as well as the content of such an assertion. Thus Frege once urged in his *Begriffsschrift* that one can represent a judgment in symbolic language as

$$\vdash\!\!\!\!-\!\!\!\!- A$$

where the vertical stroke is called the 'judgment stroke' and the horizontal is called the 'content stroke'.[17] If we omit the judgment stroke, what is left is "a mere complex of ideas," which are, however, interrelated. This constitutes a possible content of judgment, which in Nyāya terminology can be said to be the content of a judgmental cognition. The components of such a content are divided broadly by Nyāya into the qualifier and the qualificand, which are related by a qualification relation. Nyāya asserts that to say that a judgment is affirmative or negative amounts to saying that the qualifier is expressed in ordinary language by a positive phrase like 'is blue' in the sentence "The pot is blue," or by a negative phrase structure, i.e., a phrase that contains a negative particle, such as 'is not red' in the sentence "The pot is not red." The qualifier in the first case is the property of being blue or simply blue-color, whereas the qualifier in the second case is the property of not being red or simply the absence of red-color. Nyāya emphasizes that if 'red-color' is the name of a property that characterizes certain things, or, in Nyāya language, occurs in certain loci, then by the same token 'the absence of red-color' is the name of another property which likewise characterizes some other things or loci, and that a judgment merely asserts that a qualifier qualifies a qualificand.[18] It may be noted, however, that Frege, on different grounds, viz., "economy of logical primitives and their expressions in language,"

[17] See Frege, *Begriffsschrift*, pp. 1–2.

[18] This view may remind one of another view mentioned by J. S. Mill in his *System of Logic*, book I, chap. iv, section 2. Mill attributed this view to a class of thinkers of whom Hobbes might be one. Under this theory, a negative proposition is described as one in which the predicate is a negative 'name'. But then, according to Mill, one must find a 'meaning' (reference?) for the negative names like 'not-blue' in statements like "The wall is not-blue." It was suggested by such theorists that a negative expression of the form 'not-P' might be regarded as naming an *absence* of some attribute. Nyāya, however, would readily accept this position and would assert that absence of an attribute should be given equal status with an attribute itself on the ground of simplicity. Mill did reject this position, claiming that the distinction between affirmation and denial is based upon a more fundamental distinction between "two kinds of truths," or *facts*, and that nothing is gained save obscurity by getting rid of the distinction between affirming and denying. But Nyāya has also something to say, as we shall see, in its defense.

urged that it is useless to assume two different ways of judging rather than a single method of judging in which we need only one assertion sign instead of two, viz., affirmative assertion and negative assertion.[19]

It should be noted that the Nyāya concept of negation is not what we sometimes call the act of negating or denying a judgment, which is a psychological fact. Frege once described the act of negating as a "chimerical construction" — formed by a "fusion" of the act of judging with the negation that is a possible component of thought or of the content of judgment, to which there corresponds in language the word 'not' as part of the predicate.[20] Nyāya construes negation as an objective component of the content of a judgmental cognition, as an absence, not as the psychological act of denying something.

§ 11.8 One may, of course, ask why an absence of red-color should be construed as a real or genuine property like a patch of red-color, and not as a pseudo-property. The Nyāya answer to this is alarmingly simple. A property is real or genuine, and can be used in all logical or philosophical discourses, if and only if there is something, i.e., some locus, that it characterizes. In other words, "a property p is genuine" means

"$(\exists x)(x$ is a locus of $p)$."

Thus if red-color characterizes things that are red, absence of red-color characterizes things that are not red. But if there were nothing that was not red, our talk of absence of red-color would then have been unjustified, and the property absence of red-color would have been declared an empty or unexampled property, i.e., an unreal property, which is not usable in logical or philosophical discourse. Nyāya carefully avoids in its discussion any term that denotes an unexampled (*aprasiddha*) property (see § 2.9, note 33). Thus it is that Gaṅgeśa rejects all the five definitions of the *vyāpti* (pervasion or concomitance) relation based on the notion of non-deviation (*a-vyabhicaritatva*) in the "*Pañcalakṣaṇī*" chapter of *TC*, because they all can be shown to imply the use of some unexampled property or other (see § 9.7, also *TCDJ*, pp. 77–85). According to Nyāya ontology, all things are knowable, and hence knowability characterizes everything and absence of knowability characterizes nothing. Thus absence of knowability is an empty or unreal property and is on a par with the property of being a rabbit's horn. We cannot use such a property to characterize some entity; nor can we even negate such a property and talk thereby about the absence of such an unreal property as characterizing everything that is real.

One may point out that properties like absence of red-color, which Nyāya urges us to construe as separate properties, are always dependent upon some counterpositive properties. Nyāya says that in the world of properties some may be called positive and "independent" in the sense that there is always one way, at least, to express them in language without using a negative particle like 'not', and some are not positive, i.e., "dependent" in the sense that there is no way to express them in language without using a negative particle in some form or other.

[19] Frege, "Negation," p. 130.

[20] *Ibid.*, p. 128.

§ 11.9 An absence, as a property, is necessarily dependent upon a counterpositive. This feature of dependence upon a counterpositive is urged by Gaṅgeśa as the necessary character of an absence. And by emphasizing this point Gaṅgeśa rejects the Prābhākara claim that what Nyāya wants to call an 'absence of red-color' is nothing but the locus itself, i.e., a 'not-red substance', or is simply a cognition of such a locus, because an empty table or a cognition of some empty table does not necessarily depend upon the notion of a counterpositive (see Gaṅgeśa's arguments in the passages beginning with passage 29 of Chapter 14). By the same token, he also rejects the pro-Buddhist claim that the table's connection with some time calibration when there is no bread is what Nyāya calls 'absence of bread' (see passage 39 of Chapter 14).

§ 11.10 A few remarks on the Nyāya treatment of a sentence may be in order. We have noted that Frege remarked that a sentence minus the judgment stroke is transformed into "a mere complex of ideas." Nyāya reduces a declarative sentence into a complex term expressing a complex of ideas.

The first step may be taken by reducing sentences of the form "*a* (is) *P*" to the form "There is an *a* (which is) *P*." At the next step, we can drop the existential operator by assimilating (almost in the spirit of Brentano — see § 4.3, note 9) the sentence into the act of the person uttering it. Thus we have: "Someone asserts *a* (which is) *P*." Then the first part may be conveniently dropped, being always understood. Thus the sentence "*a* (is) *P*" is translated into a complex term '*a* (which is) *P*'. Now since the Naiyāyikas implicitly followed this method of translation of sentences into complex terms with the assertion part dropped, it is easy to see that the negative particle "*a* (is) not *P*" is not allowed to go with the assertion, turning it to a denial. Thus, 'not' is retained as a component of the resulting complex term '*a* (which is) not-*P*', where 'not-*P*' can be regarded conveniently as an attributive use of an adjective meaning 'that which has the absence of *P*'.

§ 11.11 Some ambiguities of ordinary language must be explained here. A declarative sentence usually combines the subject and the predicate in various ways. To be consistent with the Nyāya theory, we can talk of two different meanings of the tie that combines the subject and the predicate in a declarative sentence. It may be (i) an attributive tie, or (ii) an identifying tie. "*Ghaṭo nīlaḥ*" ("the pot [is] blue") exemplifies the first type; "*Rāmo naraḥ*" ("Rāma [is] a man") the second.[21] In English the use of the indefinite article 'a' distinguishes the second sentence from the first, but in Sanskrit an indefinite article is seldom used in such contexts. Thus, Nyāya was not able by use of non-technical language to distinguish between these two positive expressions. But the distinction became clear to the Naiyāyikas when a negative particle '*na*' ('not') was inserted in their predicates. This may be inferred from the following.

By inserting '*na*' in an attributive expression "*ghaṭo nīlaḥ*" ("the pot [is] blue") we get "*ghaṭo na nīlaḥ*" ("the pot [is] not blue"), which is analyzed in Nyāya as

[21] Compare Russell's distinction between the 'is' of "Socrates is human" and that of "Socrates is a man." See his *Introduction to Mathematical Philosophy*, p. 172.

"*ghaṭo nīlarūpābhāvavān*" ("the pot [is] in possession of absence of blue-color"). Here the attribute is *nīlarūpābhāva* (absence of blue-color), and this is called an instance of *saṃsargābhāva* (relational absence). By inserting '*na*' in an identifying expression "*Rāmo naraḥ*" ("Rāma [is] a man") we get "*Rāmo naro na*" ("Rāma [is] not a man"), which can be analyzed in Nyāya as "*Rāmo nara-bhinnaḥ*" ("Rāma [is] different from a man"). Here the property characterizing the subject is *nara-bheda* (difference from man or mutual absence of man), and hence this is called an instance of *anyonyābhāva* (mutual absence). Thus Navya-nyāya speaks of two types of absence expressed by negative particles in a sentence: (a) relational absence and (b) mutual absence (see the beginning of Chapter 16).

PART II

Gautama and Gaṅgeśa

12

A GLIMPSE OF THE BACKGROUND

Traditionally the problem of absence (*abhāva*) comprises the following specific questions: (a) Is *abhāva* to be accepted as a means of true cognition? (b) Is absence a separate category? (c) How is an absence of something cognized? A related but no less interesting question is: (d) How many kinds of absence are there? These points have been discussed and criticized by various philosophers of different schools at different times in different contexts. The literature on this subject is rich and varied.

After Gautama (ca. A.D. 150) and Vātsyāyana (ca. A.D. 300) the Nyāya position was defended more elaborately by Uddyotakara (ca. A.D. 580), Vācaspati I (ca. A.D. 950), and Jayanta (ca. A.D. 965). The Nyāya did not accept more than four instruments of true cognition, viz., perception, inference, analogy or identifying instrument,[1] and verbal testimony. Thus for cognizing absence they did not need a separate *pramāṇa* or instrument. Uddyotakara stated explicitly that an absence can be cognized through the perceptual apparatus, the apprehensional connection being *viśeṣaṇa-viśeṣya-bhāva*, a kind of *svarūpa* relation.[2]

Some problems arose in this connection. Gautama explicitly stated (*NS* 2.2.2) that the means of cognition called '*abhāva*' should be subsumed under *anumāna* (inference). Vātsyāyana explained how the example of *abhāva-pramāṇa* (absence as a means of true cognition) can be regarded as a form of inference (see Chapter 13 below). In Kaṇāda's *Vaiśeṣika-sūtra* 3.1.9, the word '*virodhi*' might have signified absence as denoting an inferential relation. Thus, Praśastapāda (ca. A.D. 525) remarked (p. 225): "*abhāvo'py anumānam eva, yathotpannaṃ kāryaṃ kāraṇa-sadbhāve liṅgam, evam anutpannaṃ kāryaṃ kāraṇāsadbhāve liṅgam*" ("Absence is also a form of inference; just as the effect being produced becomes an inferential mark of the presence of the cause, so also the effect, when it is not produced, can

[1] Ingalls, following Foucher, has translated *upamiti* as 'identification' and *upamāna* as 'identifying instrument'. See *Materials*, p. 29, n. 6.

[2] See § 4.8, note 26. Uddyotakara was quoted by later philosophers such as Śaṅkara Miśra; see Śaṅkara's *Upaskāra*, on Kaṇāda, *Vaiśeṣika-sūtra*, 9.1.1, p. 170. Some may think that, like *samavāya* or inherence of the Vaiśeṣika school, *abhāva* too is cognized through inference, not by perception. But only some of the instances of absence are actually cognized through inference, e.g., "*kāraṇābhāvāt kāryābhāvaḥ*" (an absence of the effect is inferred from an absence of the cause). In other instances of absence, where a perceptual apparatus such as apprehensional connection is present, absence is grasped even by perception.

be an inferential mark of the absence of cause"). The early Nyāya and the early Vaiśeṣika agreed that absence should not be an independent means of cognition. But this early concept of absence as a means of true cognition should not be confused with Kumārila's doctrine of *abhāva-pramāṇa*, which is also called *anupalabdhi* (noncognition). Later Nyāya-Vaiśeṣika writers criticized Kumārila on this point.

But absence as a category was approved by Gautama and his followers. Vācaspati I[3] gave his twofold division of absence, which was accepted in Navya-nyāya. Jayanta mounted his attack against both the Buddhists,[4] who refused to accept any category as absence, and the Prābhākaras,[5] who wanted to identify an instance of absence with its locus. He also rejected with elaborate arguments Kumārila's view that one should admit a separate instrument of cognition called *abhāva* in order to cognize the *prameya* (object of true cognition) called *abhāva*.[6]

Kumārila (ca. A.D. 625) discussed his view in the "*Abhāvaprāmāṇya-vāda*" of his *Śloka-vārttika*[7] (on *Jaimini-sūtra* 1.1.5). He accepted six instruments of true cognition (*pramāṇas*), adding implication (*arthāpatti*) and noncognition (*abhāva* or *anupalabdhi*) to the four of the Nyāya school. This sixth type was also called *pramāṇābhāva*, and Kumārila accordingly explained, "Where the five other means of cognition meant for revealing the presence of an object are not available, *abhāva* or noncognition becomes a means there for revealing *absence*." Cf. "*pramāṇapañcakaṃ yatra vasturūpe na jāyate/ vastusattāvabodhārthaṃ tatrābhāvapramāṇatā*" (*Śloka-vārttika*, p. 473). Pārthasārathi Miśra (ca. A.D. 950), while commenting on Kumārila, quoted in this context the following from the *Bhāṣya* of Śabara (ca. A.D. 300): "*Abhāvo'pi pramāṇābhāvaḥ nāsti ity arthasyāsaṃnikṛṣṭasya*," and explained that "*pramāṇābhāva*" in the *Bhāṣya* meant absence of the other five means of cognition by which we cognize a positive object (*sadupalambhaka-pramāṇapañcakābhāvaḥ*).[8] The Prābhākara school, however, explained the implication of the *Bhāṣya* in a different way.[9]

One can get an idea of the position of Prabhākara (ca. A.D. 700) on this subject from the *pūrvapakṣagrantha* (i.e., formulations of the opponent's view) and also from his brief remark in the *Bṛhatī* commentary on Śabara's statement "*Abhāvo'pi* . . ." quoted in the previous paragraph. *Ṛjuvimalā*, a subcommentary on

[3] Thus Vācaspati says (under *Nyāyasūtra* 2.2.12): "*paramārthatas tu prathamam abhāve dvaitaṃ tādātmyābhāvaḥ saṃsargābhāvaś ceti, saṃsargābhāvo'pi prāk-pradhvaṃsātyantābhāvabhedena trividha iti catasro vidhā abhāvasyeti*," *NS*, p. 587. This division of *abhāva* sharply contrasts with Jayanta's division of *abhāva* into prior absence and destruction, i.e., posterior absence. In the Ālaṃkārika tradition, the fourfold division of *abhāva* was noted as early as Daṇḍin's *Kāvyādarśa* (cf. chap. ii, verses 247–251).

[4] Jayanta, *Nyāyamañjarī*, pp. 54–61.

[5] *Ibid.*, pp. 62–63.

[6] *Ibid.*, pp. 49–54.

[7] Kumārila, *Mīmāṃsā-śloka-vārttika*, pp. 473–492. Cf. "*pratyakṣāder anutpattiḥ pramāṇābhāva ucyate*," p. 473.

[8] *Ibid.*, p. 473.

[9] Prabhākara Miśra, *Bṛhatī*, pp. 118–122.

Bṛhatī by Śālikanātha (ca. A.D. 825), is also a faithful exposition of the Prābhākara position. Śālikanātha gave a more elaborate exposition of the Prābhākara view in his *Prakaraṇapañcikā*.[10]

In the syncretic Vaiśeṣika tradition, discussion of absence occupies an important place. But it might be observed that the early Vaiśeṣikas (excluding, however, Candramati's *Daśapadārthaśāstra*) did not speak of absence as a separate category. One might very well explain the *Vaiśeṣika-sūtras* 9.1.1–10 without assuming that Kaṇāda was speaking here of absence as a separate category. Praśastapāda[11] also did not state whether absence should be considered a separate category. Śrīdhara (ca. A.D. 991), in his *Nyāya-kandalī*, and Udayana (ca. A.D. 1050), in his *Kiraṇāvalī*, tried to argue that although absence had not been mentioned by Praśastapāda (or by Kaṇāda) as a separate *padārtha* (category), it was nevertheless so approved by them implicitly.[12] Śrīdhara discussed at length other problems connected with absence.[13] Jayanta's argument in his *Nyāyamañjarī* has much in common with that of Śrīdhara. But Śrīdhara accepted a fourfold division of absence[14] as opposed to Jayanta's twofold division, viz., prior absence and destruction. He also raised the interesting question of how to distinguish a mutual absence (*anyonyābhāva*) from a constant absence (*atyantābhāva*) in spite of the fact that both are not temporal, i.e., are ever-present (*nitya* or *sadātana*). In a constant absence what we deny is in some way imaginary (*asat*), because it never occurs in the locus of denial but is imagined to do so, whereas a mutual absence is a denial of the identity of two real objects.[15] In the *Nyāyalīlāvatī* of Vallabha (ca. A.D. 1150) we also find a detailed discussion of absence, first on the point that *abhāva* is not a separate instrument of cognition,[16] second on the question whether absence is a separate *prameya* (object of true cognition),[17] and third on the meaning of the negative particle.[18]

In the Buddhist tradition there was lengthy discussion of the epistemological question of how we may know that something is absent. Some significant remarks

[10] Śālikanātha, *Prakaraṇapañcikā*, pp. 118–125, 128–132.

[11] See the opening sentence of Praśastapāda's *Padārthadharmasaṃgraha*. Should this book be called *Padārthapraveśa*? See D. C. Bhattacharyya, *History of Navya-nyāya in Mithilā*, p. 55.

[12] Udayana, *Kiraṇāvalī* (Calcutta, 1911), pp. 38–39: "*abhāvas tu svarūpavān api pṛthak noddiṣṭaḥ, pratiyoginirūpaṇādhīnanirūpaṇatvāt, na tu tucchatvāt; utpattivināśacintāyāṃ prāgabhāvadhvaṃsābhāvayor vaidharmye cetaretarābhāvātyantābhāvayos tatra tatra nidarśayiṣyamāṇatvāt.*"

[13] Śrīdhara, *NK*, pp. 226–230.

[14] Compare: "*sa ca caturvyūhaḥ, prāgabhāvaḥ pradhvaṃsābhāva itaretarābhāvaḥ atyantābhāvaś ceti*," *NK*, p. 230.

[15] Compare: "*itaretarābhāva evātyantābhāva iti ced aho rājamārga eva bhramaḥ, itaretarābhāvo hi svarūpasiddhayor eva gavāśvayor itaretarātmatāpratiṣedhaḥ, atyantābhāve tu sarvathā asadbhūtasyaiva buddhāv āropitasya deśakālānavacchinnaḥ pratiṣedhaḥ, yathā ṣaṭpadārthebhyo nānyat prameyam astīti, yadi cātyantābhāvo neṣyate ṣaḍ eva padārthā ity ayaṃ niyamo durghaṭaḥ syāt*," *NK*, *p*. 230.

[16] See Vallabha, *Nyāyalīlāvatī*, p. 544–550. (Was he called Śrīvallabha? See D. C. Bhattacharyya, *History of Navya-nyāya in Mithilā*, p. 55.)

[17] *Ibid*., pp. 550–561.

[18] *Ibid*., p. 561.

on the unreality of *abhāva* and particularly of *dhvaṃsa* (destruction) are found in the *Pramāṇavārttika* of Dharmakīrti (ca. A.D. 650).[19] Dharmakīrti also contended that the meaning of the particle *nañ* is something fictitious apart from the word to which it is attached.[20] Arcaṭa (ca. A.D. 800) in the chapter "*Sahetukavināśakhaṇḍana*" of his *Hetubinduṭīkā* reiterated Dharmakīrti's position and declared that negative cognition is *nirviṣaya* (i.e., has no object to which it may refer).[21] His remarks on the nature of destruction are also very similar to those of Dharmakīrti.[22] Śāntarakṣita (ca. A.D. 750) in the *Tattvasaṃgraha* and Kamalaśīla (ca. A.D. 775) in his *Tattvasaṃgraha-pañjikā* began by stating Kumārila's position on *abhāva* or *anupalabdhi* as a *pramāṇa* (means of cognition)[23] (in twelve *kārikās*, verses 1648–1659) and then rejected it in detail (in thirty-two *kārikās*, verses 1660–1691). Ratnakīrti (ca. A.D. 1075), in the *Nibandha* under the heading "*Pramāṇāntarbhāvaprakaraṇa*," [24] dealt briefly with the problem of *abhāva* in two parts: first, the question whether absence is a real object, and second, the question whether noncognition is a means of cognition. It is interesting to note that the way he framed the opponent's view (*pūrvapakṣa*) on the nature of absence has close similarity to the way Gaṅgeśa frames the view of the *prāñcaḥ* (the old Naiyāyikas) in the "*Abhāva-vāda*" chapter of the *Tattvacintāmaṇi*.[25] Jñānaśrī (ca. A.D. 1050), the teacher of Ratnakīrti, discussed the problem of absence and noncognition at greater length, and from his work Gaṅgeśa quotes one verse toward the end of his *Abhāva-vāda*.[26]

Finally, Śrīharṣa (ca. A. D. 1075) in the *Khaṇḍanakhaṇḍakhādya* trenchantly

[19] Thus compare Dharmakīrti, *Pramāṇavārttika*:
"*svato'pi bhāve'bhāvasya vikalpaś ced ayaṃ samaḥ*
na tasya kiñcid bhavati na bhavaty eva kevalam"
(chap. iii, verse 277);
or, "*na bhāvo bhavatīty uktam abhāvo bhavatīti na*"
(chap. iii, verse 278a).

[20] The following verses of Dharmakīrti are interesting:
"*satāṃ ca na niṣedho'sti so'satsu ca na vidyate*
jagaty anena nyāyena nañarthaḥ pralayaṃ gataḥ
deśakālaniṣedhaś ced yathāsti sa niṣidhyate
na tathā na yathā so'sti tathāpi na niṣidhyate"
(chap. iv, verses 226–227).

[21] See Arcaṭa, *Hetubinduṭīkā*, p. 81.

[22] Compare *Hetubinduṭīkā*, pp. 81–82. See especially the following: ". . . *na cotpanna eva pradhvaṃsābhāva indhanādīn vihanti, yaugapadyaprasaṅgāt; dhvaṃsena vināśena ca vikalpatrayasya tadavasthatvāt; tataś cānavasthā.*"

[23] Compare Śāntarakṣita, *Tattvasaṃgraha*, pp. 470 ff.

[24] Cf. Ratnakīrti, *Ratnakīrti-nibandhāvalī*, pp. 97–98.

[25] Compare: "*nanu yadi kaivalyaṃ pradeśasvarūpaṃ tat tarhi saghaṭe'pi pradeśe vidyata iti tatrāpi tasya pratyayasya sadbhāvaprasaṅgaḥ; athātiriktaḥ, mukhāntareṇa abhāva eva abhyupagato bhavatīti cen, na, kaivalyaṃ tadviviktatvam asaṅkīrṇatvam ityādibhiḥ padaiḥ pradeśasya ghaṭaṃ praty anāpannādhārabhāvasya svahetutaḥ utpannasya ghaṭapradeśād anya evātmābhidhīyate; sa eva cābhāvapratyayaṃ janayatīti kim apareṇābhāvena kartavyam,*" *ibid.*, p. 97.

[26] See Jñānaśrī Mitra, *Jñānaśrī-mitra-nibandhāvali*, p. 107. See also Gaṅgeśa, *TC*, in *TCM*, vol. I, p. 717.

criticized the Nyāya view that absence is a separate category.[27] With this much as a background, I shall give first, in what follows, a translation of selected portions from Gautama and Vātsyāyana along with such explanatory notes as seem necessary. This will be followed by a translation of Gaṅgeśa's *Abhāva-vāda*. Gaṅgeśa's arguments present a good view of the position of the New School of Nyāya on absence as a separate category. Raghunātha in his *Nañ-vāda* deals primarily with semantic and syntactic problems connected with negative sentences expressing negative cognitions. In Part III I shall give a translation of the *Nañ-vāda*.

[27] *KKh*, pp. 1051–1070. Śrīharṣa examined several definitions of *abhāva* and exposed their inconsistency through his dialectical logic. Besides this, he also argued in different places that the supposed distinction between a relational absence and a mutual absence does not stand the test of dialectical logic. See particularly pp. 346 ff.

13

GAUTAMA AND VĀTSYĀYANA ON ABSENCE (*ABHĀVA*)

The problem of negation arose early in India, as it did in Greece. Gautama upheld the view that *abhāva* (absence) should be regarded as a *prameya* (an object of true cognition). It should be noted that in order to avoid possible ambiguity I have translated *abhāva* neither as 'negation' nor as 'nonbeing' but as 'absence', which comes close to what is meant by the Sanskrit term '*abhāva*' in the Nyāya-Vaiśeṣika tradition.

Gautama held the view that while *abhāva* is not a separate instrument of true cognition (*pramāṇa*), it is an object of true cognition (*prameya*). It is evident that the term *abhāva* had been used in both senses. Gautama treated the problem of *abhāva* in connection with the favorite Indian problem of the instruments of true cognition,[1] the *pramāṇas* or the *pramā-karaṇas*. Each school of Indian philosophy held its own view of the number and the nature of these. One of the two main branches of the ritualists (Mīmāṃsakas) had included *abhāva* among these instruments. In other words, these Mīmāṃsakas contended that to know that something is *absent*, we need an apparatus for knowing which is not provided by the perceptual apparatus, the inferential apparatus, and so on.[2]

But Gautama seems to have used the term '*abhāva-pramāṇa*' (absence as a means of true cognition) in a quite different sense (see Vātsyāyana and Uddyotakara under *Nyāyasūtra* 2.2.1). Vātsyāyana explains the term '*abhāva*' in the *sūtra* as *virodhin* (contradiction or antidote) and indirectly refers to *Vaiśeṣika-sūtra* 3.1.11. Uddyotakara remarks: "*Abhāva* is the cognition of the antidote through the cognition of the upsetting of the (normal) effect" ("*abhāvo nāma pratyanīkasya grahaṇāt tad-virodhino grahaṇam*," *Nyāya-vārttika* under *Nyāyasūtra* 2.2.1). The example cited by Vātsyāyana to illustrate *abhāva-pramāṇa* is identical with the example given by the commentators upon *Vaiśeṣika-sūtra* 3.1.11, such as Śaṅkara Miśra. Seeing that the water contained in the cloud is not pouring down (as it should, because it has weight), we are led to cognize the antidote to

[1] See Ingalls, *Materials*, p. 29, n. 5. See also S. C. Chatterjee, *The Nyāya Theory of Knowledge*, pp. 390–418. For an exposition of the notion of *karaṇa*, see my article "The Doctrine of *Karaṇa* in Grammar and Logic," *Proceedings and Transactions of the All-India Oriental Conference* (Bhuvaneswar, 1959), pp. 303–308.

[2] For an exposition of *anupalabdhi* (noncognition) as a means of true cognition, see D. M. Dutta, *The Six Ways of Knowing*, pp. 157–194.

it, viz., connection of the cloud with air. Connection with air is counteracting the natural downward motion of the water contained in the cloud. Here the cognition of the *abhāva* (absence) of the (normally expected) result, viz., rainfall, leads one to recognize the presence of the antidote, viz., connection with air. Gautama in *Nyāyasūtra* 2.2.2 included such cases under inference and therefore did not accept *abhāva* even in this sense as a separate means of cognition.

On the other hand, Gautama was equally opposed to the view that *abhāva* is not even an object of true cognition. It is true that Gautama never stated specifically whether or not *abhāva* constitutes a separate kind of reality or *padārtha*. But one can see that a belief in its reality is implied by his system of sixteen *padārthas*, the basic categories that his *sūtras* attempted to analyze. Thus, he declared *apavarga* (final release of the soul) to be a separate *prameya*[3] and described its nature as the total cessation or constant absence of suffering (*duḥkha*).[4] He accepted the fact that some fundamental objects can be described in terms of *abhāva*. To put it in another way, he accepted *abhāva* as a fundamental "categorial" predicate[5] true of some objects included in his conceptual scheme. Symbolically we can demonstrate the following sentence as a posit of Gautama:

$(\exists x)(\exists y)$ (x is an absence of y).

To use the terminology of modern logic, this statement follows by the rule of "existential generalization" [6] from his statement, "Salvation is the absence of suffering." Not only his postulate of *apavarga* but also his notion of the *anityatva*[7] (noneternality) of some physical objects led him to accept the thesis of absence.

With so much by way of preface, I shall now translate those *sūtras* of Gautama, together with Vātsyāyana's commentary, which deal directly with the problem of *abhāva*.[8]

Nyāyasūtra 2.2.7 [Setting forth an opponent's view]: "*nābhāvaprāmāṇyaṃ prameyāsiddheḥ.*"

TRANSLATION: *Abhāva* is not a means of true cognition, because there is no such object of true cognition as an *absence*.

Vātsyāyana: Since absence is found to be an object in many cases of true cog-

[3] *NS*, 1.1.9.

[4] *NS*, 1.1.22 "*tad-atyanta-vimokṣo'pavargaḥ.*" Here, '*tad*' refers to the immediately preceding '*duḥkha*' in "*bādhanālakṣaṇaṃ duḥkham*" (*NS* 1.1.21). Vātsyāyana glossed *duḥkha* as *pīḍā*, *tāpa*, etc.

[5] I am using the term coined by Morton White. See *Toward Reunion in Philosophy*, p. 95.

[6] See Quine, *Methods of Logic*, p. 157.

[7] Gautama took a commonsense view of the theory of causation, as opposed to the view of the Buddhist or the Vedantin. There are things that are produced at a certain time and also destroyed at another time. The Naiyāyikas also assumed the following empirical hypotheses: (a) There are certain things which account for the production of some objects. (b) There are certain things which account for the destruction of those objects.

[8] S. C. Vidyabhusana translated the *Nyāyasūtras* in 1913. Ganganatha Jha translated them along with the *Bhāṣya* of Vātsyāyana and the *Vārttika* of Uddyotakara in *The Indian Thought*, from 1912 to 1919, consulting various manuscripts. W. Ruben's German translation of the *Nyāyasūtras* along with exhaustive notes came out in 1928, in *Abhandlungen für die Kunde des Morgenlandes*, vol. 18, no. 2.

nition, the argument that *abhāva* is not a means of true cognition because there is no such object of true cognition as absence is rather high-handed.

COMMENTS: Vātsyāyana uses "*vaiyātyād ucyate*"; Ganganatha Jha interprets "*vaiyātyāt*" as "*sāhasamātrāt*."[9] Jha also construes 2.2.7 as a *pūrvapakṣa* of the *laukikas*, i.e., an opposing view such as might be held by common people rather than scholars.

[Vātsyāyana introduces *sūtra* 2.2.8 as follows:] Many examples could be adduced, of which our author now furnishes a simple one.

Nyāyasūtra 2.2.8: "*lakṣiteṣv-alakṣaṇa-lakṣitatvād alakṣitānāṃ tatprameyasiddheḥ.*"[10]

TRANSLATION: For, where several [cloths] are marked, since there are those unmarked which are marked [out] by the absence of marks, it is proved that this [viz., absence] is an object of valid cognition.

Vātsyāyana: This absence [which is under discussion] is proved to be a *prameya*. How? Because, when cloths which are marked are not to be taken, those cloths which are not marked and are to be taken are marked [out to us] by the [very] absence of marks on them. A man in the presence of both sorts may be told, "Bring the unmarked cloths," and by means of absence of marks he will cognize those cloths on which no mark appears, and, having cognized them, he will bring them. Here [the cognition of] absence of marks is the cause of his true cognition [that is, it is a *pramāṇa*], which proves that the absence [is a *prameya*, an object of a true cognition].

COMMENTS: The text of Vātsyāyana, as it stands, seems to say that the absence of marks is a *pramāṇa*. But Gautama interprets the absence as a *prameya*. Hence I have supplied the words within brackets.

One may note that Gautama proves his point here by *vyavahāra* (appeal to observable behavior). *Vyavahāra* and *pratīti* (belief which one may verify in one's own mind) are regarded as important tests of truth from the beginnings of Nyāya.

Nyāyasūtra 2.2.9: "*asatyarthe nābhāva iti cen nānya-lakṣaṇopapatteḥ.*"

TRANSLATION: If you say, "[There can be] no absence without the thing's [first] being present," [we say] no, because the mark can be [present] on something else.

Vātsyāyana: [Opponent.] Where a thing has been and ceases to be, there we can speak of absence. But it is not the case that the marks were once on the unmarked cloths and have now ceased to be there. Therefore we cannot speak of absence of marks on them. [The answer to this is] no, because the marks can occur on other things. Just as a man sees the presence of marks on other cloths, just so does he not see marks on the unmarked cloths. By seeing the absence of marks the man cognizes the object [viz., the unmarked cloths] by absence.

COMMENTS: The last portion of the *sūtra* is highly elliptical. The compound word "*anya-lakṣaṇopapatteḥ*" also gives rise to ambiguity. S. C. Vidyabhusana

[9] See Ganganatha Jha, ed., *Nyāyasūtra* (Poona, 1939), p. 128.

[10] Ganganatha Jha reads ". . . *siddhiḥ*"; Ruben and the Calcutta edition of *NS* give the reading I have adopted here.

(1913) translated it as "from affirmation of other marks elsewhere." Ganganatha Jha (1922) gave almost a similar interpretation: "It is possible for the thing to exist elsewhere." Walter Ruben (1928) translated as follows: "weil (sein Gegenstand in Gestalt) der Kennzeichen anderer Dinge da ist."

The opponent, as Vātsyāyana understands him, seems to grant what is called posterior absence or *pradhvaṃsa* (= destruction) of an object, but not absence in general.

Gautama's argument may also be interpreted as follows: An object occurs or appears in both space and time alike. Just as a mark may occur at some particular time moment t_1, and may not occur (if destroyed) at some other time moment t_2, so also a mark may occur at some particular space point s_1 and may not occur at another space point s_2. So if in the former case one can talk about the absence of a mark, one can do so just as well in the latter case.

Nyāyasūtra 2.2.10 [giving the rejoinder of an opponent]: "*tat-siddher alakṣiteṣv ahetuḥ.*"

TRANSLATION: [Opponent.] But the fact that one finds those [viz., the marks on the marked cloths] is no reason for there being [an absence of those] on the unmarked cloths.

Vātsyāyana: There cannot be any absence of those marks that exist in the marked cloths. It is not reasonable to say that the marks that are present in the marked [cloths] are absent from the unmarked, because to speak of the absence of those which are present is a contradiction.

COMMENTS: According to Uddyotakara, the opponent is quibbling. Ruben remarked of this *sūtra:* "Ein neuer sophistischer Einwand, ein Verdrehung."

It seems to me better to interpret the opponent as follows. He is insisting upon the exclusive particularity of objects. If any object x is present in some cloth y, then neither can it be said to be absent from y (for it is there), nor can it be said to be absent from other things like z or w, for it has nothing to do with what happens or does not happen in other things.

Nyāyasūtra 2.2.11: "*na, lakṣaṇāvasthitāpekṣa-siddheḥ.*"

TRANSLATION: [Answer.] No, because [the absence of the marks is] proved by the presence of the marks [elsewhere].

Vātsyāyana: We are not saying that there is an absence of those very marks which are present. What we are saying is that, when marks are present on certain objects, by referring to that fact one may recognize objects on which they are not present by the absence of marks.

COMMENTS: Gautama seems to reiterate his own position here more precisely, avoiding the previous objection. The *sūtra* is highly elliptical. Viśvanātha explained '*avasthita*' as '*avasthāna*' in his *Vṛtti.*

Nyāyasūtra 2.2.12: "*prāg utpatter abhāvopapatteś ca.*"

TRANSLATION: Also, because there can be an absence prior to a thing's coming into existence.

Vātsyāyana: There are two sorts of absence: where an object is not found prior to its origination and where an object is not found after its destruction. That sort

of absence of marks which occurs prior to the production exists in the cloths which are not marked with the marks, not the other sort (i.e., destruction).

COMMENTS: According to Vātsyāyana, Gautama accepted two types of absence: prior absence (*prāg-abhāva*), and posterior absence or destruction (*dhvaṃsa*). Much later, Vācaspati Miśra I (so also Daṇḍin) presented a division of absence[11] that was accepted by the later school. According to him, absence is of two types: mutual absence or difference (*anyonyābhāva*), and relational absence (*saṃsargābhāva*); and the latter is of three subtypes: prior absence, destruction, and constant absence (*atyantābhāva*). Jayanta,[12] on the other hand, followed Gautama and Vātsyāyana strictly and described mutual absence and constant absence as mere varieties of *prāg-abhāva* (prior absence). He also mentioned two further varieties of absence: *apekṣābhāva* and *sāmarthyābhāva*, of which the former, he said, was a variety of prior absence, and the latter might be subsumed sometimes under prior absence and sometimes under destruction.

[11] See the *Tātparya-ṭīkā* of Vācaspati Miśra I, p. 587. See also Daṇḍin's *Kāvyādarśa*, chap. ii, verses 247–251.

[12] See Jayanta, *Nyāyamañjarī*, p. 63.

14

TATTVACINTĀMAṆI, PART I: *ABHĀVA-VĀDA* (A DISCOURSE ON ABSENCE)

1. TRANSLATION: Now, [one may object that] an absence (e.g., of a pot on a ground) is surely identical with a presence (e.g., of a ground which lacks a pot). Hence direct contacts (e.g., of sight and ground) are the means of our apprehending [what is called absence], and hence the relation qualifier-ness (*viśeṣaṇatā*) does not serve as the apprehensional connection (*pratyāsatti*).

NOTES: The apprehensional connections are the various systems of linkage between sense and object which render apprehension (i.e., perceptual cognition) possible. They are of six types (listed by Uddyotakara on *NS* 1.1.4), the first being contact of sense with object; the second, inherence (of a quality) in an object with which the sense is in contact; and so on. The sixth type of apprehensional connection, according to the Nyāya theory, is the relation qualifier-ness, i.e., the relation by which an absence of x qualifies an entity y with which the sense is connected. The objector here holds that there is no cognized object called 'absence' over and above the objects that are present and are directly perceived through the ordinary and well-known sense-object connections. There is no such thing as absence, and hence the relation qualifier-ness is unnecessary.

2. TRANSLATION: On this matter the Old Nyāya argued as follows. We do have such unrefuted cognitions as "There is no pot here on (the) ground," and such a cognition does not refer to a ground as its objective content because in that case the same cognition might refer to a ground with a pot on it. Neither does the cognition refer to *mere* ground, for we have not yet accepted a [separate entity] *mereness*. Further, if you say that *mereness* is merely the ground, you are guilty of tautology. Furthermore, if there were no difference [between absence of pot and the ground on which it occurs], the relation of superstratum-substratum [that holds between them] would be impossible.

NOTES: According to the Old Nyāya (abbreviated hereafter as *ON*), the cognition "There is no pot on the ground" is a cognition *about* an absence. According to the objector, it is a cognition about a mere ground or an empty ground. The argument about mereness (*kaivalya*) was often raised in Indian philosophical works; cf. Ratnakīrti, p. 97; Śālikanātha, p. 118; Śrīdhara, p. 229.

In the notes that follow, I shall abbreviate substratum-superstratum relation (*ādhārādheyabhāva*) as 'L-relation'. It is the relation expressed in Sanskrit by the

locative case. Since the locative case terminations are constantly employed in Sanskrit (cf., in English, 'the pot *on* the ground', 'red-color *in* a pot', 'pot-ness *in* a pot', 'absence of fire *in* water'), Nyāya regards it as representing a fundamental relation. It is fundamental in the sense that, unlike the relations 'identity' or 'coexistence' or 'concurrence', it lacks the character of reflexivity or total reflexivity. It is regarded as unique in each of its occurrences, there being no generic character present in all instances; in some of its occurrences it is a variety of *svarūpa* relation, *svarūpasambandhaviśeṣa*. Like the relation 'motherhood' it may be said to be intransitive as well as asymmetrical in some specific sense of these terms. Thus the Nyāya contends that the cognition "a is in b" is never reducible to "a is b" or "$a = b$," and that the objector is guilty of overlooking this distinction. It will not do to make absence identical with the ground, or the 'absence of pot on the ground' would become a solecism. (For definitions of 'reflexivity', 'transitivity', and 'symmetry', see Quine, *Methods of Logic*, p. 177.)

3. TRANSLATION: Now [the objector may reply as follows]. An absence must be described as having a substratum even by those who accept absence as an additional entity, because one can only speak of an absence in connection with some place etc. So there must be [according to you] in the ground [which lacks a pot] some special property (*viśeṣa*) which is the substratum of the absence. This special property cannot be the mere ground, for it might occur in a ground that has a pot on it. It cannot be identical with a ground that has an absence, because such an explanation would suffer from circularity. Nor can it be identical with a ground that has a pot, for that would be self-contradictory.

NOTES: The opponent tries to bring against the Naiyāyika the very dilemma that the Naiyāyika has used against him. The *ON*, he says, must admit that there is some special property in the ground when the ground lacks a pot. How else would that ground be distinguishable from the ground which possesses a pot? Now, what can be the identity condition of that special property? The same difficulties present themselves as were presented to the objector in finding an identity condition for the mere ground.

4. TRANSLATION: To this [the Old Nyāya] said: No, because [each] such special property would be nothing more than the substratum of [each] absence, and there would be no consecutive character (*anugama*) [to give such special properties an independent existence]. As for their serving as substrata to a unitary superstratum (viz., absence of pot), that is possible despite their lack of a consecutive character, just as there are substrata of [presence of] pot.

NOTES: The Nyāya reply points out that 'the property of having no pot' has no special character over and above that of its *dharmin* (property-possessor). It is not like cow-ness, which the Naiyāyikas claim to be unitary, to carry over from one cow to the next while being distinct from those cow-individuals in which it resides. Hence one may not establish an L-relation between an absence and the said special property, but one must establish it between the absence and the independently existing locus of the absence, e.g., the ground.

5. TRANSLATION: Again, [if one asks] where an absence occurs, the answer is, where it is cognized to occur. Where is it so cognized? The answer is, where it

does occur. On any other principle one would not even accept [universals like] cow-ness etc., for it would be possible to speak [of something as a cow] simply because of some special property of the locus [of the universal, cow-ness].

NOTES: The objector's difficulty has been in accepting a "nothing" as a "something." Hence he tried to find some positive entity to serve as the object or the reference of our negative cognitions. When his suggestions have been rejected, he says in effect, "Very well, suppose my suggestion will not work, still, your theory is unrealistic. Where could these absences ('absence' being a negative expression) you talk about occur ('occur' being a positive expression)?" Apparently the objector's mind does not balk at universals. So the *ON* answers him by saying that absences are no more unrealistic than cow-ness, etc.

The Nyāya argument for universals is basically epistemological. It may be briefly put as follows:

(a) We cognize some individuals as cows and apply the word 'cow' to them and not to anything else.

(b) Therefore, there is something present in those individuals which differentiates them from other things, and that something we call 'cow-ness'.

(c) Therefore, there is cow-ness.

This argument is somewhat oversimple. Nyāya accepts it only in some cases where no other important factor may lead to a contradictory conclusion (see also § 4.9). The problem of universals has long been a much-discussed question in the West. Schools like Realism, Nominalism, and Conceptualism have been distinguished on the ground of their differences regarding the solution of this problem. Russell in *The Problems of Philosophy* presented an argument for universals that seems to involve implicitly an epistemological premise. If it does, it is comparable to the Nyāya argument given above. (On the structure of Russell's argument, see Morton White's *Toward Reunion in Philosophy*, pp. 33–34.) Sometimes universals are posited in order to make sense of scientific generalizations like "Water freezes at 32 degrees Fahrenheit." This also, in spirit at least, resembles the Nyāya theory that in order to guarantee the truth of the conclusion from a universal proposition as one of its premises, we need to talk in terms of universals. Modern formal logicians take the problem of universals as the problem of the general term and its reference. And thus it is now treated as a problem of logic and language rather than of epistemology (see Quine, *From a Logical Point of View*, essay iv).

6. TRANSLATION: [The opponent argues:] But still, on what kind of ground does an absence occur? [Answer:] If you ask what kind of ground it was before the occurrence of the absence on it, the answer is that it was a ground with a pot on it. Similarly, at the time of absence, it is a ground with an absence of pot on it. There is, surely, no intermediate time. This is further shown by the apprehension of the substratum-superstratum relation in "There is no pot here on (the) ground."

NOTES: This is a continuation of the previous argument. The opponent challenges the *ON* to spell out what specific property the ground possesses when there is no pot on it. The *ON* avoids the question. It simply asserts that if one says that the attribute *presence of a pot* is what characterizes the ground when

there is a pot on it, then by parity of reasoning the attribute *absence of a pot*, or more precisely, *absence of a pot in general* is what characterizes the ground when there is no pot on it.

Note that the *ON* is prepared to accept attributes of such complex nature as *presence of a pot*, although it is always willing to explicate them so as to put them into one or the other pigeonhole of fundamental categories. Thus *presence of a pot* is identified with a pot, a concrete object, and *absence of pot* with pot-absence, a fundamental entity according to the ontological diagram of the traditional Nyāya-Vaiśeṣika school.

7. TRANSLATION: [Opponent argues.] The ground's property of being a substratum to an absence is not what is apprehended, but what is apprehended is the ground's property of *being the object of a cognition of 'a mere that'* (i.e., of ground only).

[Answer.] Oh! What skill at explaining things! Even what is [directly] experienced is being explained away, and the object referred to by 'a mere that' is not explained at all. 'Cognition of a mere that' cannot stand for the [simple] cognition of ground, because the cognition of a ground that has a pot on it is also a cognition of ground.

[Objector.] That cognition [of a ground that has a pot on it] is not a cognition of ground [simply], but of both ground and pot, just as both Agni and Soma are (jointly) the presiding deity [of some Vedic hymns].

[Answer.] No, because [in that case] one would not speak of ground [but of ground *and* pot] since a ground [alone, without a pot,] is not the object of that cognition. If you say: [one speaks of ground because] another cognition with ground as its object arises immediately afterwards, then that (second) cognition of ground would be what is referred to by the expression 'a cognition of a mere that', and hence would arise the absurdity that one must speak of an absence of pot as occurring in that very piece of ground [which has a pot].

NOTES: The opponent argues that the L-relation is not registered in the content of the cognition "There is no pot here on the ground." What is registered on its content is the property p, where $p =$ the property of being the sole object of a cognition. Thus the cognition takes cognizance of a mere ground, and, for that matter, a mere ground appears as characterized by such cognition. In other words, the opponent wants to connect the cognition with ground rather than connect absence with ground.

The expression '*tanmātrabuddhiviṣayatva*' presents difficulties. The literal translation of '*tanmātrabuddhi*' is '[a] cognition of a mere that'. The Naiyāyikas may press on that point and ask the opponent to explain the meaning of 'a mere that.' If one says that 'a mere that' refers to a ground, then the following problem will arise: How are we to distinguish between the following two cognitions?

(1) "There is no pot on the ground."

(2) "There is a pot on the ground."

Both (1) and (2) can be described as a cognition *about* a ground. The opponent argues that we can characterize (1) as a cognition of a mere that, but (2) cannot

be so characterized. The Naiyāyikas will not accept such a distinction because the meaning of the phrase 'a mere that' remains ambiguous.

Several attempts at explaining the expression 'a mere that' are examined. It has already been shown that the notion of mere-ness involves an absence. Nyāya contends that unless we resort to the notion of absence in some way or other, the above phrase cannot be satisfactorily explained.

Śālikanātha in his *Prakaraṇapañcikā* asserts that what goes by the name 'absence' is nothing but *tadekaviṣayabuddhi* (a cognition of a mere that). He says: "*dṛśyapratiyogiviṣayā tadekopalabdhir eva varam abhāvo'stu*" (p. 121). Gaṅgeśa's expression '*tanmātrabuddhi*' may be a rephrasing of the '*tadekaviṣayā buddhi*' of the Prābhākara school.

Gaṅgeśa's repetition of the phrase '*tanmātrabuddhi*' in connection with the Prābhākara objection also reminds one of Śrīharṣa's remark in a similar context. Compare:

"*yat tu kenacid abhāvasya sthāne tanmātradhīr abhiṣiktā tat tasya param ucitam*:
gurur dhiyam abhāvasya sthāne sthāne 'bhiṣiktavān
prasiddha eva loke 'smin buddhabandhuḥ prabhākaraḥ

(It is quite proper for the person, who replaced absence by a cognition of a mere that, to do so.

Well-known, indeed, is Prabhākara, the Guru, as a friend of the Buddhist, [for] he has substituted cognitions in all places of absence)," Śrīharṣa, *KKh*, p. 1064.

Reference to the joint deity, Agni and Soma, eventually leads to the problem of joint ownership discussed in the Pūrva-mīmāṃsā school.

8. TRANSLATION: In this way, the [following] argument is also answered: "One must admit a factor to distinguish cognition x, which is produced from the connection between a ground and the sense organ, from a cognition y, which is produced from the connection between a-ground-with-a-pot-on-it and the sense, because there cannot be a difference in the *sāmagrī* (i.e., the complex of causes of the cognitions) without a difference in the results, and this [factor which distinguishes cognition x from cognition y] is exactly what we mean by 'a mere that' [in the expression 'a cognition of a mere that']." For even in the case of cognition y one still speaks of a ground.

NOTES: The opponent first appeals to the following empirical law of causation in order to maintain a distinction between cognition (1) and cognition (2) of the Notes to passage 7. If one *sāmagrī* (causal complex) is distinguishable from another *sāmagrī*, then what is caused by the one is also distinguishable from what is caused by the other. The *ON* replies by insisting on the previous argument: If both cognitions (1) and (2) alike refer to a ground, the one would be indistinguishable from the other.

9. TRANSLATION: [Opponent.] We may define an absence [of pot] as a cognition of ground arising from [necessary] factors other than the counterpositive (viz., pot) and anything pervaded by the counterpositive.

[Answer.] No, because a cognition that refers to ground with a pot on it,

although it arises [in part] from the counterpositive, arises also from factors other than the counterpositive.

[Opponent.] But the absence is a cognition that arises *only* from other factors [among the causal complex generating a cognition].

[Answer.] This will not do, because the meaning of 'only' is absence (i.e., involves negation), and [the nature of such absence has not yet been discovered].

[Opponent.] Let us say that an absence of pot is [simply] a cognition that takes ground as its object but does not take pot as its object.

[Answer.] No. The answer [to such an objection] has already been given [viz., that the nature of absence has not yet been discovered].

NOTES: The opponent wants to identify the absence of pot with the cognition of the locus, i.e., ground. His position can be clarified (using '$\sim a$' for 'the absence of a') as follows:

> "$\sim a = b$ (where a represents a pot and b represents a cognition of the locus of $\sim a$, i.e., of a ground) provided that b is produced only by a causal complex, say, c, and c includes neither a as a factor *nor* anything that is pervaded by a as a factor."

The *ON*, however, points out that the opponent's explanation still makes use of the expression 'only', which in some way or other concedes to some form of negation, i.e., absence.

10. TRANSLATION: Moreover [absence cannot be reduced to cognition]; an absence is such that its determination depends on the determination of its counterpositive, whereas a cognition [per se] is not such, for a cognition can be determined without the determination of a counterpositive [like a pot].

[Opponent. We grant that] in order to make use or to speak [of an absence], one must know its counterpositive and [also] that such a counterpositive must be perceptible; however, an absence may be simply *cognized* [without apprehension of its counterpositive].

[Answer.] There is no evidence for that, for [evidence depends on our use or speech, and] whenever we use or speak of a thing, we have had experience of the thing to be used or spoken of.

NOTES: The opponent argues that to cognize $\sim a$, we do not need to cognize a. It is only in order to describe $\sim a$ in words or in order to take some action with respect to it, that we need to know a. It is ordinarily seen that our speech behavior about $\sim a$ is preceded by our cognition of a, but our cognition of $\sim a$ (i.e., of b; see my Notes to passage 9) does not need such a prior cognition. The *ON* answer here is not very convincing. For a better defense of the Nyāya position see passage 30 below.

11. TRANSLATION: If you say that what is meant by absence [of x] is a cognition of a mere locus [say, y] arising upon remembrance of a counterpositive [viz., x], then a cognition of a mere locus such as a man has in darkness, etc. would not be an absence [for there would be nothing to remind him of a counterpositive]. Thus as he walked along, he would be pricked by thorns, for unless he remembered thorns, there could be no absence of thorns. In an uninhabited land if a dam broke the water would not flow out, for there could be no cognition at that

moment of a mere locus [there being no cognizer there to have the required cognition]. Furthermore, as soon as one's cognition of a mere locus was ended, the pot [that was smashed by a hammer] should reappear, for the absence of absence of a pot is a pot [itself].

NOTES: The subjectivistic view of absence is here reduced to three absurdities, which require, I think, no comment.

12. TRANSLATION: Again, if absence is not an independent entity, how could there be a cognition of a mere locus where there had previously been a cognition that a pot was connected therewith? There could not, for you do not admit that any [new or] independent object (viz., absence) of cognition has been produced by the fall of the hammer [on the pot].

NOTES: The argument may be supposed to be directed also against those Buddhists (e.g., Dharmakīrti) who attack the Nyāya view by saying that by destroying the pot by a hammer, we certainly do not create a new thing called absence (i.e., destruction or posterior absence according to Nyāya) of pot. This argument will be discussed at greater length by Gaṅgeśa later on. For Dharmakīrti's view see *Pramāṇavārttika*, chap. iii, verses 192–196, and the commentary of Manorathanandin thereon.

13. TRANSLATION: If, however, you ask what proof there is for [the existence] of the additional [entity called absence], the answer is that the cognition that something is *not* present is its proof here. Now, it should not be said that there cannot be any talk of or action with regard to an absence because the defect of mutual dependence would ensue.

NOTES: Read with Jayadeva *'na tv'* instead of *'nanv'*. Mutual dependence is a variety of circularity; see Chapter 10. The *vyavahāra* (speech behavior or behavior in general) would depend on a cognition, and the cognition would depend on the *vyavahāra*. In what follows, a proponent of the Prābhākara school, one of the two main schools of Mīmāṃsā, tries to clear his doctrine of the defect ascribed to it. He begins by claiming that we do not have here a case where *a* causes *b*, which in turn causes *a*. The cognition that causes *vyavahāra* of absence neither implies existence of absence as an independent entity nor itself presupposes the *vyavahāra* of absence. The Prābhākara argument, interspersed with objections, will continue until Gaṅgeśa finally puts forth his own view; see passage 29.

14. TRANSLATION: On this subject the Prābhākaras argue as follows:

[Roughly speaking,] the cause of a statement of absence [of a pot on a ground] is a cognition of ground which is different from a cognition of ground-with-a-pot-on-it. Given a ground where there is a pot, if a man fails from some defect [of the cognitive process] to cognize that it has a pot, one cannot argue that his cognition of ground alone would constitute an absence [of pot]. For, a cognition of ground which is different from a cognition of ground-with-a-pot-on-it is what is equivalent to absence [of pot], and if one mistakes the cognition, one [also] mistakes the absence [involved].

But more precisely, since a cognition of the locus-with-the-counterpositive-on-it may be unexampled in a case of constant absence, [e.g., of the absence of color in air, which is regarded as an eternal (*nitya*) absence by the Nyāya since the

counterpositive color never occurs in air], we should say that the cause of a statement of *vyadhikaraṇābhāva* (locative absence) is a cognition of a locus that is different from a cognition-of-that-which-has-the-counterpositive. [On the other hand] a notion of *samānādhikaraṇābhāva* (nominative absence) depends on a *svarūpa-bheda* (essential difference) of counterpositive and locus. Therefore, even while a ground is cognized as possessing a pot, we may have the notion, "the ground is not a pot." Thus, what the others (i.e., the Naiyāyikas) take to be the cause of a cognition of absence may be taken to be the cause of our speaking of absence, because the cognition of absence does not arise without the cognition of the locus [of absence].

NOTES: The circularity that the Prābhākaras are trying to avoid has already been mentioned in my Notes on passage 13 above. Jayadeva in his *TCA* explains this circularity as *ātmāśraya* (self-dependence). But the Bibliotheca Indica edition notes a variant of Jayadeva's text in a footnote where the defect is explained directly as *anyonyāśraya* (mutual dependence) (cf. Jayadeva, *TCA*, p. 697). And this, I think, should be the case.

Vyadhikaraṇābhāva, which I have translated as 'locative absence', means literally, 'an absence wherein [the word for the thing absent and the word for the thing where it is absent appear with] different case terminations'. Thus we have "*bhūtale ghaṭo nāsti* (a pot does not occur *in* or is not *on* the ground)" or "*bhūtale ghaṭābhāvaḥ* (absence of pot [is] *on* the ground)." Actually the examples of *vyadhikaraṇābhāva* in Nyāya always involve the use of a locative case ending. *Samānādhikaraṇābhāva*, which I have translated as 'nominative absence', means literally 'an absence wherein [the word for the thing absent and the word for the thing with respect to which such absence is asserted appear with] similar case terminations'. Thus, "*paṭo ghaṭo na* (A cloth is not a pot)." An exact translation of the terms into the language of Greek grammar would be 'dysptosic negation' and 'symptosic negation'. To give a formalized description, the class of locative absence is the class of or, to be precise, the 'ordered pair' of objects of which the following matrix or 'open sentence' is true, "x is not in or on y," whereas the class of nominative absence is the class of or the 'ordered pair' of objects of which the following matrix is true, "x is not y." (For a definition of 'matrix' or 'open sentence' see Quine, *Methods of Logic*, p. 91, and for the notion of 'ordered pair' see Quine, *Word and Object*, § 53.)

Passage 14 requires some explanation. The simplest form of the Prābhākara doctrine has been given in the preceding passages, viz., what is called absence is simply a cognition of a mere locus that is directly perceived. Our talk of the counterpositive becomes relevant only for our *vyavahāra* with respect to an absence, not for cognizing an absence.

The present passage propounds a refinement of this doctrine. It also avoids the defect of mutual dependence mentioned before. In the case of all locative or relational absences our *vyavahāra* (speech behavior) proceeds from a cognition of the locus, a cognition that is at the same time different from the *pratiyogi-prakāraka-jñāna* (cognition with the counterpositive as the qualifier). All nominative absences are merely denials of identity and hence not different from positings of *svarūpa* or the essential nature of things.

There are good reasons for so refining the Prābhākara doctrine. The Prābhākara has so far argued that only in describing an absence do we make use of the notion of a counterpositive. We make such use because the cause of our description is a cognition of the (mere) locus, a cognition that is different from a cognition of the locus-with-a-counterpositive-on-it. But, the objector may point out, in describing cases of eternal negation or eternal absence, e.g., cases of constant absence like "There is no color in the air" or cases of mutual absence like "A cloth is not a pot," in which the locus is never found to possess the counterpositive concerned, the above theory would be untenable. The reason for that is obvious. In such cases, a cognition of the locus-with-a-counterpositive-on-it is an unexampled notion, a vacuous term on a par with terms like 'a rabbit's horn'. Thus the Prābhākara is guilty of making use of an unexampled notion in explanation (see § 2.9, note 34, § 11.8, and also my Notes to passage 6 of Chapter 16).

Foreseeing such an objection, the Prābhākara refines his doctrine. He asserts that he is *not* making use of a cognition of the locus-with-a-counterpositive-on-it but of a cognition which has the counterpositive as a qualifier (i.e., not *pratiyogimad-adhikaraṇa-jñāna* but *pratiyogi-prakāraka-jñāna*). And as far as the mutual absence is concerned, we cognize and speak about such cases only because of the essential nature of things (as being different from each other).

15. Translation: Moreover, the mere cognition of ground is not such (i.e., is not equivalent to an absence or the cause of our speaking of an absence), for this [simple cognition] could equally refer to a ground that has a pot on it. Nor can we distinguish the cognition [which justifies our speaking of absence] by its special property of referring to a ground which is the locus of absence, for even when the counterpositive pot is present, we may have the cognition "This was not here before."

Again, if [the Naiyāyika takes] the absence [to] be an essential qualifier of the ground which is the object of the cognition ["There is no pot on the ground"], there must then be a [further] cognition of the absence as a cause of that cognition; while if [he takes] it [to] be an adventitious qualifier, the cognition will be essentially the same as a mere cognition of ground.

Notes: In justifying his doctrine, the Prābhākara mentions the case of a past incidence of absence. But the Naiyāyika may circumvent the difficulty which the case presents by imposing a temporal condition on his definition. Foreseeing such a move, the Prābhākara turns to a more serious difficulty that confronts his Nyāya opponent.

The point of the difficulty lies in the Nyāya analysis of complex cognitions (which we have called qualificative cognitions). A cognition of a blue pot, according to Nyāya, presupposes simple cognitions of blue-color and of pot-ness. In the same way, the Prābhākara argues, the Naiyāyika faced with the cognition of absence of pot on the ground (i.e., an absence qualifying the ground) must presuppose a previous cognition of absence. His only way out will be to claim that the absence is not an essential qualifier of the ground, for, in that case, supposedly, a previous cognition of the qualifier is not needed to produce the cognition of a ground qualified by absence. The term 'essential' requires some explanation. The Indian philosophers distinguish between *viśeṣaṇa* (an essential

qualifier) and *upalakṣaṇa* (an adventitious qualifier). The former is an essential element of the thing qualified. Such a qualifier is referred to in the sentence "Look at the blue lotus," for we are hereby directed to look at what is blue as well as a lotus. On the other hand, if someone says to me, "Look at the house where the crow is hovering; that is where Devadatta lives," I am directed to look at a house, not, except by way of preliminary direction or indication, at a crow. The blue color is an essential qualifier of the lotus, the crow is an adventitious (or indicatory) qualifier of Devadatta's house. The problem, as will be apparent from the examples, bears superficial resemblance to the traditional problem of essential predication among some philosophers of the West.

Note also that, according to the Indian theory, to decide whether a qualifier is essential or adventitious, one has to consider the containing sentence or the given context, not simply the clause where the predication is expressed. Thus, the containing sentence in the latter case evidently shows that what the speaker actually wants to refer to is the house itself, not the crow hovering over it.

16. TRANSLATION: [The Prābhākara continues.] If you say that the cause [of our speaking of an absence] is a nonapprehension of something [e.g., a ground] as possessed of a counterpositive, we answer no; because even where there *is* apprehension of the thing as possessing a counterpositive, we may have a cognition such as "It (e.g., the superstratum, pot) was not here before." Again, the distinction of the two cognitions ["There is a pot on the ground" and "There is no pot on the ground"] is a distinction of essential nature [of the two cognitions] and not a case of mutual absence, for that would lead to infinite regress or would be [circular because of] self-dependence. Or, we may say that what distinguishes the first cognition from simple cognition of ground is its property of being a cognition of the-ground-with-a-pot-on-it.

NOTES: The Prābhākara eventually appeals to the notion of 'essential nature' (*svarūpa*) as the mark which distinguishes a positive from a negative cognition. This *svarūpa-bheda* (essential difference) is something like the Platonic idea of Difference, an *eidos*. Instead of accepting what Nyāya calls a mutual absence, the Prābhākara appeals to the essential nature of a thing that makes it different from other things (see § 11.6). Otherwise, the question whether mutual absence itself differs from other entities or not will lead either to infinite regress or to circularity. Śrīharṣa, too, has admirably discussed this point against the view that *bheda* or difference is but a mutual absence:

> "*Vaktavyas tarhi ko'sau bhedo nāma? sa hi svarūpaṃ vā syāt, itaretarābhāvo vā dharmāntaraṃ vā, nādyaḥ . . .*" (*KKh*, p. 1141).
>
> "*Nāpi dvitīyaḥ pratītāv anyonyāśrayaprasaṅgāt/ pratiyogirūpatvenāpratītāv adhikaraṇapratītiḥ adhikaraṇasvabhāvatvenāsmṛtau pratiyogismṛtīś ca tadgrahaṇakāraṇam ataḥ kvetaretarāśraya iti cet/ maivam/ evaṃ hi sati kumbhaḥ paṭo na bhavatītyatra yathaiva tasyābhāvasya pratiyogitayā paṭo niṣidhyate tathā kumbho'pīti so'pi kumbhātmatayā niṣiddhaḥ prasajyate*" (*KKh*, p. 1143).

Nyāya may argue that terms like '*svarūpa*' or 'essential nature' are too vague to have any explanatory value. Assuming this, the Prābhākara resorts to a grammatical subterfuge in order to explicate the nature of *svarūpa*. The following

principle is used: If something is described as A, then its essential nature is A-ness, a unique property which makes it different from any other thing. Suppose cognition (2) of my Notes on passage 7 is described as an A (where A stands for 'a cognition of a ground with a pot on it'). Thus A-ness (i.e., the property of being a cognition of a ground with a pot on it) is taken as a distinguishing property. Such properties are intensional abstractions from ordinary descriptive phrases. Sanskrit philosophers frequently resorted to such abstractions — a practice that was most probably aided by the flexibility of the language they used.

17. TRANSLATION: And even under the theory that absence is an independent entity, there is no proof of mutual absence or of constant absence, which are eternal. The reason is that nothing more is involved [in these cases] than the essential nature of the locus, the counterpositive being present in the mind [of the person cognizing the locus], because in those cases the locus simply cannot be identical with the counterpositive, nor can it possess the counterpositive. This is why you do not allow a further absence to occur in an absence; because that further absence would be indistinguishable from its locus.

NOTES: Here a distinction is made between the transient absences and the eternal absences. The transient absences are prior absence, e.g., the absence of a pot on the wheel before it is made, and posterior absence or destruction, e.g., the absence of a pot on the ground after it has been smashed by a hammer. The *ON* regarded these as the fundamental types of absence (cf. Gautama, *NS*, 2.2.12) and even Jayanta, although he mentioned six types of absence, tried to reduce all types to these two (see Chapter 13, note 12).

In the case of the transient absences one may imagine a change of property in the locus being brought about by the occurrence of the absence. But this alteration is impossible in the case of the eternal absences. Water does not acquire any extra property by being the locus of the eternal absence of fire in it, nor does a pot change from being a pot by being not-cloth or not-stick. All that is involved here is the essential nature of water or of pot. In the same way, says the Prābhākara, the Naiyāyika who allows the absence of trees on a mountain to be an independent entity will not allow the absence of pine trees in that absence (namely, absence of trees) to be a further independent entity.

18. TRANSLATION: [A preliminary objection is raised against the Prābhākara.] But now, one cognition is distinguished from another simply by the thing [which forms its object], and here there is no difference between the two things [viz., ground and ground-with-a-pot-on-it]. [To this the Prābhākara replies.] Not so, for it is not simply the object that is necessary as a cause of a cognition. Rather, from any distinction in the whole complex of causes there ensues a distinction in the cognition, as may be seen in a continuous chain of cognitions [of the same object]. Or, [if you insist on a distinction within the object,] we may say that a ground, which is different from a ground-with-a-pot-on-it, is [what is called] absence. It is in this that the Naiyāyikas [claim to] find [their independent entity], absence. And the difference [which we have spoken of] is simply the essential nature [of the things]. Even you would define essential difference as where there is a cognition [of two things] without a cognition of their identity; and this is

exemplified by our notion, "this ground is not now a ground-with-a-pot-on-it." Our disagreement amounts simply to this, that the notion which denies a common locus [to the two concepts, i.e., which expresses a symptosic negation] involves for you a difference consisting of mutual absences, whereas for us it involves essential natures [of the two].

NOTES: For the first part of the argument see Chapter 2, note 8. The Prābhākara insists that difference is actually what *is* the essential nature of objects. This theory may be compared with the view of some philosophers of both India and the West that difference forms an essential part of being. Śālikanātha in the *Prakaraṇapañcikā*, p. 112, puts forward the same Prābhākara view in slightly different terms: "*Tatraikākī bhāvaḥ svarūpamātram ucyate* (here the unique being [of an entity] is called simply its essential nature)." In what follows we shall see the Nyāya criticizing this notion of 'uniqueness' (*ekākitva*).

19. TRANSLATION: [Objection against the Prābhākara.] But how can that very same ground that was nondifferent from ground-with-a-pot-on-it be [all of a sudden] different from ground-with-a-pot-on-it?

[Answer.] [The objection has] no [force], because the objector is faced with the same difficulty when he establishes his mutual absence by means of an uncontradicted cognition which denies a common locus [to the differing concepts, i.e., which involves a symptosic negation]. If he says that difference [from x] and nondifference [from x] do not contradict each other [in the same object] if a time difference is specified, the same holds true of our theory also. Thus, he may say that a mutual absence and the absence of such absence occur in a ground as limited by [the times respectively of] pot and absence of pot, taking his stand on the inference "If this ground were now nondifferent from ground-with-a-pot-on-it, it would be expressible as 'ground-with-a-pot-on-it'." But then surely he must accept our saying that a difference of essential nature and the absence of such difference may occur [in a cognition] as limited by [the times respectively of] cognition of ground and cognition of ground-with-a-pot-on-it.

NOTES: In the Sanskrit text the word '*buddhir*' (line 9) should be emended to '*buddhi-*'.

To avoid circularity, difference is explained as something belonging to the essential nature of things. The other difficulties, the Prābhākara points out, will also remain the same if one holds the Nyāya position.

20. TRANSLATION: [Objection against the Prābhākara.] But how could there be a dubious cognition, such as "Perhaps there is a pot on the ground, perhaps not," or a contradictory cognition [such as "There is a pot on the ground" when there is not]; for in both cases the counterpositive would be in your mind, and there would be apprehension of the absence [all the same] whether you take such absence to be [the same as] the locus (ground) or your cognition of the locus?

[Answer.] [The objection does] not [hold], for [in these cases], owing to some defect [of the perceptual process], the property of being different from ground-with-a-pot-on-it has not been properly ascertained in the ground, or the property of being different from a cognition of the ground-with-a-pot-on-it has not been properly ascertained in the cognition of that [ground].

NOTES: The objector says that there cannot be any dubious cognition or false cognition about an absence, say, $\sim a$, under the Prābhākara theory. Here $\sim a$ is identical with either a locus b or a cognition of b. But to doubt whether something is present in a locus or not, one needs to cognize first the locus itself. This is the principle stated as "*saṃśaye viparyaye vā dharmijñānaṃ kāraṇam.*" Thus when a locus b is known or a cognition of b is revealed and the counterpositive a is remembered, the absence $\sim a$ is ascertained automatically, no chance being left for its being doubted or mistaken.

The Prābhākara points out that mistakes or doubts can very well take place as a result of some defect in the perceptual process with respect to an object previously ascertained. Suppose I know Devadatta: seeing that man, Devadatta, approaching from a distance or in dim light, I can very well be in doubt or mistaken whether it is Devadatta or not.

21. TRANSLATION: [The objector asks.] Since each ground and each cognition of ground are such that they have no (common) consecutive character, how can we speak of them as having a common denomination?

[Answer.] The problem remains the same even if you accept absence as a separate entity. Thus, absence-ness cannot be taken as a generic property [to justify our use of the same expression 'absence' in different instances] because it cannot include [without the fault of circularity] that mutual absence of which it itself is composed, [for absence-ness is defined as the property of being different from (i.e., being the mutual absence of) presence]. Nor is it (absence-ness) definable as the property of x, such that x is contradictory to the positive entities, because contradiction itself is something to be determined by recourse to absence. If [you say that] contradiction is but the nonconcurrence of the two objects in one locus, then [we reply that] such nonconcurrence of a positive entity and its absence in one locus is nothing else but the essential natures of objects themselves. *Nor* is it the property of x, such that x has a positive entity as its countercorrelate, because a countercorrelate itself is definable as the absence of an absence; moreover, the absence of an absence [which is also an instance of absence according to you] does not have a positive entity as its countercorrelate. Nor is it the property of x such that x has a countercorrelate, because entities like the relation of inherence, similarity etc. also have a countercorrelate. Nor is it the property of x, such that x is of the nature of being dependent on something else (or, of being cognized when something else is cognized; see Jayadeva, *TCA*, p. 704), because cognitions etc. would be thereby included [in it]. Moreover, if the word 'nature' means the exclusive nature, then such a property can never be regarded as common to more than one situation. Nor is it even the property of being devoid of being-ness (*sattā*), because being-ness itself is also devoid of being-ness. Moreover, 'being devoid of' signifies an absence.

NOTES: The problem here discussed is that of the absence-universal. The Naiyāyikas do not accept a universal as a fundamental entity unless it is identifiable with a *jāti* (generic property). Absence-ness is not a *jāti* since it does not *inhere* in the absence-particulars. The relation of inherence, by definition, connects two positive entities.

The usual meaning of substantive suffixes like '*-tva*' or '*-tā*' ('-ness' or '-ship') can be stated as follows:

"*A*-ness = a property which occurs in everything that is an *A* and does not occur in anything that is not an *A* (*tad-itarāvṛttitve sati sakala-tad-vṛttitvam bhāva-pratyayārthaḥ*)."

This fails in the case of absence-ness, because of circularity.

The circularity can be shown as follows. A definition of absence-ness is offered in order to permit us to determine what is an absence and what is not. But the expressions in the definiens — *tad-itara* and *a-vṛttitva* — already involve the notion of absence in some way or other. Thus an understanding of the definiens is not possible without a prior understanding of the definiendum.

Various alternative explanations of absence-ness are examined and rejected one by one. This portion of Gaṅgeśa's *TC* is in a way reminiscent of Śrīharṣa's examination of absence-ness in *KKh*. Gaṅgeśa says, to substantiate the Prābhākara position:

"*na ca bhāvavirodhitvam, virodhasyābhāvanirūpyatvāt, bhāvābhāvayoḥ sahāvasthānābhāvasya svarūpānatirekāc ca*" (*TC*, p. 702).

Śrīharṣa says, to reject the notion of absence or absence-ness:

"*bhāvavirodhitvam iti cen na/ sarvabhāvavirodhitvaṃ tadviśeṣavirodhitvaṃ vā/ . . . atha sahānavasthānaṃ virodho vivakṣitaḥ sa bhāvānāṃ nāstīti cen na/ gotvāśvatvādau tasyāpi bhāvāt . . .*" (*KKh*, pp. 1051 ff.).

There is an ambiguity in the use of the term '*pratiyogin*' here. It refers alike to absential adjunct and relational adjunct (see Chapter 6). Accordingly, I have translated it as 'countercorrelate'. Because of such ambiguity one may confuse the meaning of *sapratiyogikatva* with that of *parakīya-svabhāvatva*. Jayadeva dispels the confusion by explaining the former as '*tan-nirūpaṇādhīna-nirūpaṇatvam* (the property of x, such that description of x is dependent on the description of something else)', and the latter as '*paravitti-vedyatvam* (the property of x, such that x is cognizable through the cognition of something else)'; see Jayadeva, *TCA*, p. 704.

22. Translation: [The Prābhākara continues.] If you say that absence-ness is the property of x, such that x has the constant absence of being-ness, and say that constant absence is something that can be cognized even when absence-ness is not cognized, we answer no. We do not accept that an absence can occur in another absence; and if it could, one would have to admit the defect of self-dependence (see Jayadeva, *TCA*, pp. 304–305). [The objector says.] Absence-ness is the property of x, such that there is no cognition of being-ness in x; for [although there is no being-ness] in *jāti*, etc., being-ness is [erroneously] cognized [there], and we only refuse to accept it because of the contradiction [that would ensue], while in absence we actually experience an incompatibility with being-ness. [The Prābhākara answers.] This is not so, because incompatibility is nothing more than the essential nature of things. [The objector suggests.] Incompatibility can be defined as the invariable nonconcurrence of things in the same loci.

[The Prābhākara answers.] No, because nonconcurrence is the absence of concurrence, and thus this will lead to circularity. [The objector suggests that] absence-ness is the property of x, such that x is different from presence (i.e., from

a positive concept). [The Prābhākara again answers] no, because such difference is either the same as the essential nature or the same as the mutual absence, and in either case the difficulties which have been already discussed will follow. Furthermore, it is still to be decided what 'difference of properties' really is.

Even prior-absence-ness, etc., are to be determined with a reference to absence.

NOTES: *Sattā* (being-ness) is the highest *sāmānya* (generic property) and is comparable with the notion of highest genus in the Aristotelian system. As a *jāti* (generic property) it occurs in three fundamental types of objects: substance, *guṇa* (quality), and *kriyā* (activity). Thus *sattā* is regarded as a genuine attribute of these three. Other categories like *jāti* itself (of which *sattā* is a type), *viśeṣa* (particularity), *samavāya* (inherence), etc., may also be described as *sat* (existent), but Śrīdhara says that the attribute, existence or being-ness, cannot be said to be a *true* qualifier of the above categories. These categories can at best be called *positive concepts* (*bhāva*) as opposed to the negative ones from which Nyāya gets the class of entities called absence (see Śrīdhara, *NK*, p. 19). In another context it has been remarked that for each thing *x*, *sattā* will be a genuine attribute of *x* if and only if *x* has at least one of three properties: a generic property, a *viśeṣa*, or *samavāya*.

The objector tries to define absence-ness in various ways to avoid the defect of overpervasion as well as circularity. Gaṅgeśa's style may well remind one of similar arguments found in Śrīdhara's remark:

> "*Svātmaikasattvaṃ svarūpaṃ yat sāmānyādīnāṃ tad eva teṣāṃ sattvam, na sattāyogaḥ sattvam/ etena sāmānyādīnāṃ trayāṇāṃ sāmānyarahitatvaṃ sādharmyam uktam ity arthaḥ/ katham etad, bādhakasadbhāvāt/ . . . kutas tarhi sāmānyādiṣu sat sad ity anugamaḥ/ svarūpasattva-sādharmyeṇa sattādhyāropāt/ tarhi mithyāpratyayo'yam/ ko nāmāha neti/ bhinnasvabhāveṣv ekānugamo mithyaiva/ svarūpagrahaṇaṃ tu na mṛṣā, svarūpasya yathārthatvāt*" (*NK*, p. 19).

Śrīharṣa has argued in *KKh* as follows: We do indeed apply the expressions '*sat* (existent)' and '*asti* (is [somewhere])' predicatively to *jāti*, *viśeṣa*, or *samavāya*. But existence or being-ness (*sattā*) cannot be taken as their *genuine* qualifier, for it will run against the Nyāya-Vaiśeṣika doctrine that *jāti* etc. are devoid of *sattā*. The Nyāya-Vaiśeṣika school is forced to accept such a position in order to avoid an infinite regress or circularity. If, however, we accept *sattā* as the meaning of *asti* and rule that "*jāti* is *sat* (exists)" expresses an erroneous cognition (as Śrīdhara actually does) then, Śrīharṣa argues, *jāti* etc. are to be regarded as *absence* or *abhāva*, which is absurd. Cf. "*astīti cāstyartho vā śabdo vā vivakṣitaḥ/nādyaḥ tasyāniruktеḥ/ sattā tadartha iti cen na/ sāmānyādīnāṃ tadabhāvād abhāvatvāpatteḥ*" (*KKh*, pp. 1044–1045). Śrīharṣa here actually examines the notion of *bhāvatva* (presence-ness), i.e., the nature of being a positive entity, rather than absence-ness. In this connection he also makes the following important remark: Since we find that "is (somewhere)" and "exists" are synonymous, we might define *bhāvatva* as that entity which is commonly shared as meaning by these two expressions. But Śrīharṣa retorts that without explaining what that meaning is, we cannot definitely say whether the two expressions are synonymous or not. One may try to define synonymity as follows: *x* and *y* are synonymous if *x* is applicable to all and only those places where *y* is applicable. But Śrīharṣa points

out that two expressions like 'knowable' (*jñeya*) and 'namable' (*abhidheya*) can be coextensive, i.e., concurrent in their uses in the above sense, but they do not have the same meaning. Compare:

> "*so'py astiparyāya iti cen na/ ubhayasādhāraṇaikārthanirvacanam antareṇa paryāyatvasya pratipādayitum aśakyatvāt/ yatraikasya astipadaprayogas tatraivāparasya vartata iti prayogāt sāmānyena tāvat paryāyatvaṃ śakyādhigamam iti cen na/ prameyābhidheyādiśabdānāṃ tathātve'py aparyāyatvāt*" (*KKh*, p. 1045).

Śrīharṣa also quotes the view of Kumārila that from the fact that we understand (the meaning of) a word, it does not follow that there is an entity answering to (the meaning of) it. Compare: "*atyantāsaty api jñānam arthe śadbaḥ karoti hi*" (*KKh*, p. 1047). Here, Śrīharṣa's view becomes strikingly similar to the view of some modern philosophers who contend that synonymity of terms should be explained in some way without recourse to the "strange" entities called 'meanings'. Śrīharṣa's philosophical motivation was, however, quite different from that of the modern philosophers.

The objector to the Prābhākara also tries to use the notion of *bhāvatva* instead of *sattā* in order to explain absence-ness without running into a vicious circle. *Bhāvatva* is taken as the property of *x*, such that *x* is a positive concept, and as such, it occurs in all the fundamental six categories of the Nyāya-Vaiśeṣika school. But this raises the problem of defining *bhāvatva* without using the notion of absence-ness.

It may be noted here that some Naiyāyikas like Raghunātha do not accept *sattā* or being-ness as a generic property at all. Again, they want to take absence-ness (*abhāvatva*) as an *akhaṇḍa upādhi* (unanalyzable imposed property). It is then easy to define *bhāvatva* in terms of *abhāvatva*. But Raghunātha also suggests the other way around, of taking *bhāvatva* as an unanalyzable imposed property. "*Abhāvatvam eva vānugatapratyayasiddho'khaṇḍopādhiḥ/ bhāvatvaṃ vākhaṇḍopādhiḥ/ tac ca jñeyatvādivad ghaṭābhāvādivac ca svavṛtty api*" (*PTN*, p. 49–51).

23. TRANSLATION: [The objector replies.] If this is so, then let us admit that there is no *anugama* (consecutive nature) to [different instances of] absence [such as would allow us to speak of a unitary absence-ness occurring in each instance of absence]. What more do we need [than absence itself]? But then the expression 'a pot' must likewise be due simply to the essential nature (*svarūpa*) [of that object, and there would be no need to posit a universal 'pot-ness' to explain our linguistic behavior].

[The Prābhākara says.] That will not do, because we experience the pot as different from the ground.

NOTES: As in passage 5, the Prābhākara wants to keep universals like pot-ness and cow-ness while denying absences. His reason appears from the above. Pots and cows are experienced as being different from each other, and we need the universals to explain the difference in our experience. But absences are not experienced, according to the Prābhākara, as being different from anything; rather, the places where those objects which are called absences occur are experienced as being different.

It should be noted that passage 23 of Gaṅgeśa, being rather elliptical, can be

interpreted in various other ways as well. What I have shown in the translation is one way of explaining it in conformity with the main argument of the chapter.

24. TRANSLATION: [Opponent to the Prābhākara says: Let us then say that] absence is a unique entity [like inherence] and itself furnishes the *anugama* (consecutive nature) [to each locus where it resides].

[Answer.] This will not do, because it would then be eternal, and we should therefore have to speak of absence [e.g., of a pot] even at the time when the counterpositive [e.g., the pot] was present, and also because this [eternality] would contradict the doctrine of prior and posterior absences. Rather it is better, even for him who regards absence as an independent entity, to accept particular cognition of the ground as the factor which causes our cognition of absence and imparts the consecutive nature [to each such absence]. Let this particular cognition be both object and instrument of our valid knowledge, because cognitions [according to us, the Mīmāṃsakas,] are self-illuminating.

NOTES: The opponent to the Prābhākara argues that if we can regard absence as an entity which is one and unique like *samavāya* (inherence), then there will be no problem of *anugama*. The Prābhākara then raises an interesting point. An abstract entity like *samavāya*, which is unique, although it is instanced in different places, must also be eternal. But this will contradict the usual doctrine of absence since we also talk about temporary absences like prior absence. Also the question arises, when the counterpositive is present, what happens to the absence which is supposed to be one and eternal? It may be noted in this connection that the same problem arises in the Nyāya doctrine of constant absence, which is declared to be eternal. Some want to take the absence of color in air as an instance of constant absence because in such a case the counterpositive never occurs in the locus. Others, however, describe an absence of pot on the ground as an instance of constant absence. Here the difficulty arises: what happens to such an absence when a pot is present on the same ground? Thus compare Viśvanātha (*Siddhāntamuktāvalī*, pp. 63–64), "*yatra tu bhūtalādau ghaṭādikam apasāritaṃ punar ānītaṃ ca tatra ghaṭakālasya sambandhāghaṭakatvād abhāvasya nityatve'pi ghaṭakāle na ghaṭātyantābhāvabuddhiḥ/ tatrotpādavināśaśālī caturtho'yam abhāva iti kecit.*"

The Prābhākara holds the self-illumination theory of cognition along with other schools of Indian thought. Roughly, we may state the thesis of *sva-prakāśa* (self-illumination) as follows: if x is a cognition by which a person a knows that p, then by the same x, a knows that a knows that p.

The dispute between those who hold the self-illumination theory of knowledge and those who hold otherwise has a long history both in India and in the West. In India the Prābhākara Mīmāṃsakas were called self-illuminationists (*svaprakāśavādin*), while the Naiyāyikas were the opponents of such a theory. In the West, from the ancient philosophers like Plato and Aristotle up to recent times, there has been discussion about the problem of 'knowledge about knowledge' in some form or other. And very often the self-illumination theory has been favored. Quite recently J. Hintikka has given a formal proof to show that:

(1) "a knows that a knows that p"

and

(2) "a knows that p"

are "virtually equivalent." That is, according to him, (1) and (2) "have exactly the same logical powers" (see his *Knowledge and Belief*, pp. 103–110).

As opposed to this, the *parataḥprakāśa* (illumination from outside) theory held by the Naiyāyikas can be roughly summarized as follows: if x is a cognition by which a knows that p, and y is a cognition by which a knows that a knows that p, then $x \neq y$. It is granted, however, that y may follow immediately after x or may even occur simultaneously with x, but the two are nevertheless distinct. In other words, they would not concede that the causal factors of x are identical with those of y.

It may be remarked here that in his proof Hintikka uses the word 'know' in a special sense (which he calls the 'primary sense' of the verb). He notes: "In the primary sense of *know*, if one knows one *ipso facto* knows that one knows" (*ibid.*, p. 28). He acknowledges, however, that in other senses of the verb the above implication or equivalence may not hold true.

Whatever the situation may be in this case, it seems to me that the dispute between the Naiyāyikas and the Mīmāṃsakas can be better understood if one examines carefully the basic notion of *jñāna* (cognition) as used by both schools. The Nyāya theory implies that if a cognizes that p, then epistemologically it does not follow that a necessarily cognizes that a cognizes that p.

25. Translation: [Opponent to the Prābhākara argues.] But now, if cognition of the mere locus is all that absence amounts to and if this cognition is self-illuminating, there would be no need to cognize the counterpositive at all.

[Answer.] That is not so. There is a need [to cognize the counterpositive], not in order to cognize the absence, but in order to speak of it.

[Opponent: The rule is that] where there is a desire therefor, a cognition does not need to be supplemented in order to be expressed.

[Answer.] Not so; there are obvious cases where it must be supplemented before it can be expressed, for example the case of expressing length of size. Thus, being long is that [aspect] of size in which the calibrations such as cubits are delimited by a greater number, while being short is that [aspect] of size in which the contrary holds good. Now, a size of this sort [e.g., of something which is long] is apprehended at the very moment of apprehending the whole object in view, but to speak of that object's being long, one needs also a cognition of that aspect of size whose calibrations in cubits, etc., are delimited by a smaller number.

Notes: A negative has dropped out of the text in the 4th line of passage 25. Compare passage 30, lines 10–11.

The Prābhākara's answer raises a good point here. Presumably a dog can see that it is a long way across the field, but one cannot imagine a being to use the word long without knowing also the reference of 'short'.

26. Translation: [The commentator Jayadeva supplies the following objection against the Prābhākara. "But now, if cognition of the mere locus is all that absence amounts to, one would not examine a ball of rice etc. for hairs or insects etc., for the cognition of their locus, namely, the ball of rice, would itself determine their absence."]

[Answer.] Even if cognition of the mere locus be taken as what one calls absence,

since this cognition depends [for its validity] on the fact that the counterpositive be perceptible, it would still be a useful endeavor to examine [rice] for hairs and insects in order to exhaust the possibilities of perception [of such things].

NOTES: *Dṛśyatā* (perceptibility) has been explained by Jayadeva as *pratiyogi-grāhaka-yāvat-sampatti* (i.e., the collocation of all possible conditions under which the counterpositive x could be perceived had it been there) (see Jayadeva, *TCA*, p. 707). Although hairs etc. are subtle enough to remain imperceptible under ordinary circumstances, they can be perceived provided that some effort is made to ensure the "perceptibility" condition in them. The "perceptibility" condition is nothing but the truth condition of the following counterfactual:

(a) "Had x been there, x would have been perceived."

Roughly this is what is called *dṛśyatā-sampatti* or *yogyatā*. Effort to perceive x is justified only because it helps create such a condition. Such an effort is not necessary if the object concerned is, by nature, not amenable to perception.

The argument here is reminiscent of Śālikanātha's similar argument with a similar example. In the *Prakaraṇapañcikā* he discussed the problem at some length; the following lines are relevant: "*prayatna-pūrvikayā hi jijñāsayā kevala-bhūtala-pariccheda eva labdhavyaḥ, sa ced vināpi prayatnaṃ labdho niṣphalaṃ prayatnapūrvakaṃ sūkṣma-kaṇṭakādyanveṣaṇam*" (p. 120); "*na ca sūkṣmāḥ kaṇṭa-kādayaḥ prayatnam antareṇa dṛśyatām āpadyanta iti dṛśyatvāpattaye yuktaiva prayatna-pūrvikā jijñāsā*" (p. 120).

27. TRANSLATION: [The Prābhākara answers objections that were raised in passage 11.] And if cognition of the mere locus is all that absence amounts to, it does not follow that upon the destruction of that cognition, this being an absence of absence, the presence [e.g., the positive entity pot] must reappear; for just as an absence of a pot is a cognition, so also is an absence of that cognition [according to us] another cognition.

And it does not follow that water would fail to flow out where a dam is broken in an uninhabited land, for although there are no humans present, there may very well be the various cognitions of birds and insects.

NOTES: The first rebuttal would imply that there can be no absence of absence of pot on the ground until one has a cognition that absence of pot is *not* on the ground. Thus it follows that presence requires a cognizer just as much as absence. This leads to what is called subjectivism. But the Prābhākara will not, perhaps, remain content with such a position, although he seems to accept it here in order to reject absence as a separate category. The second rebuttal is logically, if not aesthetically, on a par with Berkeley's argument that events unperceived by humans can be validated by God's perception (cf. *Three Dialogues between Hylas and Philonous*, pp. 212 ff).

28. TRANSLATION: [Opponent.] There is no evidence that salvation is connected with some particular person and not with others, [for salvation, being the absence of *saṃsāra* (the suffering of transmigration), would be nothing but a cognition of the mere locus, i.e., an individual self, and thus anyone having a cognition of that self would have salvation].

[Answer.] This is not true, because we can conceive of some cause if and only

if the effect is present there. It cannot be also argued that if such a cognition [which is supposed to be identical with salvation] is destroyed, then there will be again *saṃsāra*, for [in the case of salvation] there is continuance of the cognition-particulars [one after another]. Nor can it be insinuated that all persons will have salvation at the same time [if anyone has it at any time], because there is no evidence [for such an occurrence]. Thus [it is seen that] everything is surely well justified if the locus itself, which is distinct from the locus having the counterpositive x, is regarded as absence.

Thus far is [the exposition of] the view of the opponent [of Gaṅgeśa, e.g., the Prābhākara, as well as the earlier Naiyāyikas].

NOTES: The opponent's argument about salvation of all is most probably a quibble and does not strictly apply against the Prābhākara. Nevertheless, the problem of salvation of all persons at a time was a very pertinent question in the monistic philosophy of Vedānta, for, among other things, it does not accept a plurality of selves.

The Prābhākara, however, answers here in a different way: You cannot go to the length of reconstructing such a cause unless the effect is seen to be present. Since such an event, i.e., salvation of another person or of all persons, does not take place, your insinuation is unfounded. A more sophisticated reconstruction of the Prābhākara view on this point will be given later on. See passage 36 below.

29. TRANSLATION: [Gaṅgeśa's own view:] The correct doctrine, however, is as follows. An absence is always apprehended along with a counterpositive entity, for our apprehension is in such forms as "[It is] not a pot," "[It is] not a cloth"; so [an absence] is not a mere that. Thus, the evidence of our experience shows that the counterpositive is cognized in the cognition of the absence and that the cognition of the absence is dependent upon a cognition of the countercorrelate, just as it is so in the case of the similarity [of *gayal*] to cow. Neither the mere locus nor a cognition of the mere locus is [equivalent to] absence, because we may have a cognition of a mere that (viz., a mere locus) without a cognition of a counterpositive, and because a counterpositive is not included in the objective content of a cognition of a mere that. If an absence were not [always apprehended] along with a counterpositive, one might ask to what could a pot belong as counterpositive.

NOTES: From now on, the view of Gaṅgeśa will be discussed; 'opponent' or 'objector' will refer to anybody who is not a Naiyāyika, e.g., a Prābhākara or a Buddhist.

Jayadeva remarks: Although the dependence of the cognition of absence of x on the cognition of the counterpositive x is not what is directly experienced, it follows as a consequence from the general epistemological premise, viz.,

(a) If anything is apprehended as the qualifier of something in some cognition, it must also be apprehended per se prior to that cognition.

(b) It is seen that x is apprehended as the qualifier, i.e., the adjunct of the absence of x.

(c) Therefore, x must be cognized prior to the cognition of the absence of x.

The example of the similarity of a *gayal* to a cow may be expanded as follows.

Using 'pratiyogin' in a broader sense (see § 6.1) to cover both absential adjunct and relational adjunct, one can argue that, just as one needs to know the countercorrelate cow in order to know the similarity of a *gayal* to a cow, one also needs to know the countercorrelate pot in order to know an absence of pot in a locus. The underlying epistemological principle, which is empirically justified, can be stated as follows:

"$(x)(y)(y$ is a countercorrelate of $x \cdot x$ is cognized by a person $a \cdot \supset y$ is also cognized by $a)$."

30. TRANSLATION: Now [our opponents may argue] that the mere locus or a cognition thereof is [all that] absence [amounts to], that this occurs without any counterpositive, but that when we wish to *speak* of an absence, only then is a cognition of the counterpositive required, and hence a pot is a counterpositive of our speaking of absence-of-pot [only] because our speaking of the one contradicts our speaking of the other. If [they argue] thus, they are wrong. In the cognition "there is no pot here," pot is apprehended as the counterpositive of that which is referred to by the negative particle, not as the counterpositive of our speech behavior with regard to absence, which ensues *after* the cognition of the absence, for we could not actually form a notion of such a counterpositive at the time of our experience of the absence. If it is argued that the counterpositive is [only] used in our speech behavior and not experienced [when absence is experienced], we say no; for the speech behavior could not proceed without the [prior] experience. Nor is it right to say that there is a need for cognition of the counterpositive only in order to speak about absence [i.e., to express it in words], because there is no evidence that in order to express an object one needs any new cognition beyond the cognition of the object to be expressed, so long as a desire to express that object is present and also the cognition concerned is expressible [in our speech behavior].

NOTES: The dispute here centers upon the following problem: whether it is in cognizing an absence or in our verbal behavior about an absence that the reference to a counterpositive becomes indispensable.

Gaṅgeśa appeals to the following empirical criterion. One can express one's cognition of something, if one so wishes, without looking for any further cognition of something else, provided, however, that such a cognition is amenable to verbal expression. The last condition is obviously in order to make allowance for indeterminate or nonqualificative cognitions, which are, by definition, taken to be inexpressible.

31. TRANSLATION: [Opponent.] It would be simpler in the case under discussion to assume that a new cognition is needed than to assume absence [as an extra entity].

[Gaṅgeśa replies.] No, because [you have] not determined that such a new cognition is a cause for our speech behavior in general and because there is no consecutive character to the specific cases of our speech behavior in question.

[As regards 'being long' and 'being short', which the Prābhākara said (see passage 25) were cases demanding a new cognition in order to be expressed in words], shortness and length [are not different aspects of size but] are actually

different sizes. Even according to the Prābhākara shortness and length of size, which he defines as being calibrations such as cubits which are delimited by a smaller or greater number, can be known only by reference to these lesser or greater delimitors; accordingly they are not experienced at the time of cognizing the substance, even though [some sort of] size is experienced, and [hence] they are not then expressed.

NOTES: Nyāya determines causal relations by empirical investigation. It takes a cause to be an invariable antecedent of the effect and also to be unconditional (*ananyathāsiddha*). Whenever possible it seeks to discover a *sāmānya-kārya-kāraṇa-bhāva* (a generic cause-and-effect relation). Thus, from the empirical premise that

(1) "a pot is produced by a (potter's) rod," the Nyāya generalizes, by induction,

(2) "$(x)(x$ has pot-ness $\supset (\exists y)(y$ has rod-ness $\cdot$ x is produced by $y))$ (*ghaṭatvāvacchinnaṃ prati daṇḍatvena kāraṇatvam*)."

Nyāya also admits *viśeṣa-kārya-kāraṇa-bhāva* (particular cause-and-effect relations), which can be stated as follows:

(3) "x and x only is produced by y and y only."

In passage 31 Gaṅgeśa argues that there is no generic cause-and-effect relation between an extra cognition of an additional thing (i.e., one in addition to the original cognition of the thing to be expressed) and a speech behavior with regard to the thing to be expressed. If, however, a particular cause-and-effect relation between them is posited then one runs into the difficulty of logical heaviness or *gaurava*. Note that the main argument of the opponent in this passage started with the logic of simplicity or *lāghava* (cf. Chapter 10). Read '*lāghava*' instead of '*laghava*' in the text.

The example of shortness and length of sizes was cited as an exception to the given empirical rule about speech behavior (see passage 25). Gaṅgeśa says that it is not a real exception. Shortness and length are but attributes of individual sizes. If a thing is grasped, it may also be grasped that the thing has a particular *parimāṇa* (size), and for that matter, we can say that a cognition of size per se has also taken place. But this does not imply that we also grasp whether the thing is long in size or short. In other words, we do not grasp at that time shortness or length as qualifying that size by the same token. Thus, we cannot use "the thing is long in size" etc. at that moment.

32. TRANSLATION: Although [different] generic properties occurring in a *gayal* are apprehended along with the cognition of a *gayal*, yet one does not speak of the similarity-to-a-cow at that time, because similarity-to-a-cow is the property p, such that p occurs in a cow and also in a *gayal*, and cognition of such property p is dependent upon the cognition of a cow.

NOTES: The opponent might have argued against the example that Gaṅgeśa used in passage 29, that a cow is not cognized in the cognition one has of a *gayal* that it is similar to a cow, but that the concept of cow comes into play only when we wish to *say* that a *gayal* is similar to a cow. *Pari passu* the cognition of absence of pot need not be dependent on a cognition of pot. Gaṅgeśa forestalls such an

argument in passage 32. The word '*gosādṛśyam*' in the text seems to be redundant.

33. TRANSLATION: [Opponent.] Let us understand the matter in the following way. First, it is generally admitted that the use of the word 'absence' in a given case springs from a prior cognition of something. Now the object to which this usage refers is simply the ground, etc., for nothing else such as a pot is [at that time] revealed [to the senses]. Thus when, in dependence on [a prior cognition of] x [e.g., a pot], an entity y [e.g., the ground] becomes the object referred to by the use of the word 'absence [of x]', we conceive of y as being the absence of x. And the relation that appears in the form of adjunct-subjunct between absence of pot and ground is nothing more than the ground's being the object referred to by the use of the word 'absence' [where this usage is] occasioned by a [prior] cognition of a pot. It is on this account that the ground [i.e., what you call an absence] appears *along with* the counterpositive because it is the object referred to by the use of the word 'absence', a use occasioned by a cognition of that [counterpositive]; for, [otherwise,] without that cognition, ground cannot become the object referred to by the use of the word 'absence [of pot]'. It is only by means of such an imposed property that one can understand the meaning of an expression like 'absence of pot'.

NOTES: The opponent tries to explain the use of 'absence' in a different way. A prior cognition of a pot leads to our application of the expression 'absence of pot' to the object ground. Thus the ground y is said to have the property p, where $p =$ the property of being the object referred to by the use of the expression 'absence of pot', such a use, in turn, being produced by a cognition of x. This also amounts to saying that absence of x and the object y are related as adjunct to subjunct. Now, the property p also implies that y has an adjunct or counter-correlate, which, in turn, explains the meaning of the expression 'absence of pot'.

34. TRANSLATION: [Gaṅgeśa replies.] To such an argument we say no. A ground is not the object referred to by use of the expression 'absence [of pot]', for neither our cognition nor our expression is in the form "the ground is an absence of pot"; rather, they are both in the form "on the ground is an absence of pot," just as [in the positive instance our cognition and expression are in the form] "on the ground is a pot." This is because in the cognition "there is no pot on the ground" something over and beyond the locus ground is revealed, namely, the object referred to by the negative particle.

Furthermore, if the ground's being the absence of pot amounts to nothing more than the ground's being the object referred to by the use of the word 'absence', that use being occasioned by [a prior] cognition of pot, then whenever ground is understood to be an absence of pot, it will be such an object, and whenever it is understood to be such an object, it will be such an absence. Thus your theory suffers from circularity, for the use of a word is bound to our [prior] understanding of the basis for its employment. And the basis for the employment of the expression 'absence of pot' is but the property of being an absence of pot.

NOTES: Gaṅgeśa wants to employ the semantic argument to show that absence is an independent entity over and beyond the locus of its occurrence. He asserts that what is denoted by the particle *nañ* in all negative cognitions is nothing but

absence. If you deny this by saying that the negative particle in a negative cognition like "There is no pot on the ground" simply refers to the ground as its object, you run into the difficulty of circularity. For instance, the general rule is that when we understand the *pravṛttinimitta* of a word, that is to say, when we know what is meant by an expression, we use it to convey such a meaning. Thus, when we know ground to be identical with absence of pot, we should use 'absence of pot' to denote ground. But also when we know that ground is denoted by using 'absence of pot', ground becomes identical with absence of pot. Thus, to complete the circle, the use of 'absence' to denote ground is dependent upon our cognition of ground as identical with absence, and ground's being identical with absence is dependent upon our cognition of the use of 'absence' to denote ground. The first part of the circle is but a particular case of the general rule cited above, and the second part is what the opponent holds to be true.

The first part of Gaṅgeśa's argument here seems to be rather weak from the viewpoint of modern theories in semantics and logic. It now takes no great effort to show that in a natural language many meaningful words do not *denote* any entity. Frege long ago emphasized this point (see "Über Sinn und Bedeutung," p. 96). Words like 'and' or 'sake' are quite meaningful without even purporting to be names at all (see also Russell, "On Denoting," and Quine, *From a Logical Point of View*, essays i and iv). For a note on "*pravṛttinimitta*" see § 3.5.

35. TRANSLATION: And if ground were that which [simply by its nature] possesses a countercorrelate, it would then never appear without its countercorrelate as mere ground but would be analogous to similarity. [What appears is always a similarity *to something;* mere similarity does not appear.] If you say that ground [by nature] possesses a countercorrelate [only] in that situation when one uses the expression 'absence of pot', the following defect of circularity will then ensue. Where ground possesses a countercorrelate, it would there be the object referred to by use of the expression 'absence of pot', a use occasioned by a [previous] cognition of pot; and where ground was such an object, it would possess the countercorrelate pot, because mere ground would possess no countercorrelate. You might as well say that a *gayal*'s similarity to a cow is nothing more than its being the object referred to by the use of the word 'similar', this use being occasioned by a [previous] cognition of cow. Thus similarity would disappear as an independent entity, and you would have argued away what is meant by 'that which has a countercorrelate'.

NOTES: *Sādṛśya* (similarity) is used as a criterion in the above argument. Similarity is supposed to be a relation such as that in which the adjunct is a cow and the subjunct a *gayal*, just as in the case of absence the adjunct may be a pot and the subjunct ground.

Note that, although the Naiyāyikas do not accept similarity as a separate entity as the Prābhākaras do, Gaṅgeśa uses this example just to show inconsistency in the Prābhākara view. In lines 3-4 of the passage, '*sa-pratiyopikam*' should be read as '*sa-pratiyogikam*'.

36. TRANSLATION: Again, the mere ground cannot be the absence of pot because we apprehend a superstratum-substratum relation between absence and ground,

which would not be the case if they were identical. [Or, if you say that the absence of pot is simply a ground which is different from a ground-with-a-pot-on-it, we may point out the following dilemma.] If the absence of suffering is simply a self that is other than a self that possesses suffering, then salvation would not be the goal of man, for one cannot produce a self [for self is an eternal entity, and one can only produce changes in its qualities]. Or, if you say that the absence [of pot] is simply a cognition of ground that is different from a cognition of ground-with-a-pot-on-it and that the ground's being the substratum of this absence is experienced simply by a relation of essential self-sameness, we say no. Since such a cognition is without a counterpositive, it cannot be an absence, as we have already said. And we may ask whether such a cognition is supposed to be a cause of our speaking of absence by its very nature or only insofar as it is experienced as a denial that has ground as its locus. Not the former, because it could not be cognized by its very nature as occurring in ground. Not the latter, because a cognition of ground-with-a-pot-on-it is not present at the same time, and so one could have no cognition of something's being different from that.

NOTES: Gaṅgeśa reiterates the traditional argument about the L-relation offered by the earlier school of Nyāya. He also scores a point in the argument about salvation. In passage 28 of the text there was some quibbling about the salvation argument. Here, however, Gaṅgeśa raises a somewhat subtle point. Salvation is supposed to be the goal to be achieved by human beings. Under the Prābhākara theory of absence it would be reduced to an eternal entity, which, by definition, cannot be produced or achieved by any amount of human effort. There is, however, a touch of sophistry in making the self identical with salvation. The opponent can clarify his position without being as inconsistent as it sounds on the face of it. Compare Mahādeva's remark in *Nyāyakaustubha* (p. 137): "*Yat tūktam 'adhikaraṇātiriktadhvaṃsānaṃgīkāre mokṣasyāsādhyatvāpattiḥ tasyātyantikaduḥkhadhvaṃsarūpatayā tasya cātmarūpatayā nityatvenāsādhyatvād' iti/ tat tuccham/ . . . mokṣasyātmarūpatayā nityatve'pi mokṣatvāvacchinnādhikaraṇatāyā eva sādhyatvopagamāt/ naiyāyikamate' py adhikaraṇatāyā atiriktatvāt.*"

The main point Gaṅgeśa wants to emphasize is this: Neither the empty ground nor a cognition of such a ground can sufficiently explain our cognition of the absence of pot there; for a cognition of the countercorrelate must be present in some form in order to make the cognition of an absence possible. Gaṅgeśa argues that some feature of what is presented must be such that it accounts for this dependence upon the countercorrelate, or upon a cognition of it, which eventually leads to the cognition of absence. This feature, he says, can very well be treated as a part of what is given and can be regarded as an instance of absence.

It can be argued that just as in some cases of *svarūpa* relation the adjunct does not differ from the subjunct as a fundamental entity (e.g., in the case of an imposed property, see § 4.9), so also an absence may be taken as ontologically indistinguishable from its locus. In reply, Gaṅgeśa repeats his previous argument and remarks that in the case of such an identity of absence and its locus the feature of dependence upon the counterpositive could not be satisfactorily explained.

37. TRANSLATION: Again, if the absence [of pot] is nothing more than a cogni-

tion of ground different from a cognition of ground-with-a-pot-on-it, then, when from some defect in the perceptual process there is a failure to recognize the possession of a pot in [a ground] which possesses a pot, that too would be an absence [of pot]. And so the same thing at the same time would possess a pot and would possess an absence of pot; nor would either the cognition nor the verbal expression of pot-absence be in error, for they would not be in contradiction to what is given [i.e., to what is given by you as absence, viz., a mere cognition]. You may say that what is meant by an absence of pot is a cognition of ground which is different from a cognition of a ground which really possesses a pot and that a cognition of ground when it possesses a pot is not of that sort; and that the verbal expression [of pot-absence] is wrong, and that we do not see that there is such an error [in cognition as opposed to verbal expression]. But then the cause of our verbal expression of the absence [of pot] would be a cognition, namely, of ground, insofar as that cognition is known to differ from a cognition of a ground which [actually] possesses a pot. But this is impossible, for such [a knowledge of difference] cannot appear either by self-luminousness or by a coincident apperception within the cognition of the locus, because the counterpositive of the difference is not then present. Nor could the difference be apprehended by an ensuing cognition, for the difference cannot be determined without the determining of an absence of pot by means of the nonperception of what is perceptible.

NOTES: I shall interpret the opponent's position with the help of the symbols of logic. Let α be the class of all objects x, such that x is a cognition of ground, and let β be the class of all objects y, such that y is a cognition of a ground-with-a-pot-on-it. Thus, since a cognition of a ground-with-a-pot-on-it is also a cognition of ground, to be sure, β is a subclass of α. Now, let us think of a class γ, which may be called the complementary class of β (in some sense), and γ is defined as follows:

$$\hat{x}(x \epsilon \alpha \cdot -(x \epsilon \beta)).$$

The opponent asserts that the class of all objects of which absence of pot can be predicated is the same as the class γ.

Gaṅgeśa argues: Given a ground with a pot on it, suppose that one cognizes the ground but fails to cognize the pot on it due to some defect (say, insufficient light). This cognition of ground would also be a member of γ according to the above definition. Thus one might cognize and speak about that ground both as having a pot on it and also as having the absence of pot on it. Such a possibility obviously leads to contradiction. One could get around the difficulty, however, if it could be shown that either of these two cognitions or two verbal expressions (e.g., "The ground has a pot on it" and "The ground has no pot on it") is false. But this, Gaṅgeśa thinks, could not be done under the opponent's theory of error, because both the qualifiers of the ground, namely, a pot and what the opponent calls an absence of pot, namely, a cognition of mere ground, conform with the given reality, i.e., the given situation there.

Then a modified statement of the opponent's position is given, which I interpret as follows. The class α is defined as above, but the class β is defined as being the class of all objects y such that y is a cognition that refers to a ground where a pot *actually* occurs. Now the class γ is defined as before. The opponent will now assert,

as before, that the class of absence of pot is the same as the class γ. Under this view, however, the supposed case of cognition that arises out of the failure to perceive the pot present on the ground will no longer be a member of the class γ. And hence the supposed contradiction will not take place, for the cognition present there can no longer be regarded as an absence of pot. And as far as the two verbal expressions are concerned, there would be no difficulty, since one of them ("There is no pot on the ground") must be ruled as false because it does not correspond to what is present in reality there.

But Gaṅgeśa finds fault with this position, too. He points out that the verbal expression about absence of pot must be produced from such a cognition of ground as can be known to be different from a cognition of ground that actually has a pot on it. Note that in passage 25 the Prābhākara stated that it is only to speak of absence of pot that one must cognize the counterpositive pot, that this is not necessary for simply cognizing such absence. This reply was based on the theory that a cognition of the mere locus is identical with the absence on it and also accounts for our talk of such an absence. But the modified view states that the cognition of ground which is cognized as different from a cognition of a-ground-with-a-pot-on-it is what causes our speech behavior with regard to absence of pot (see also passage 14). Under this view, however, as Gaṅgeśa points out, dependence of the verbal behavior about absence upon a prior cognition of the counterpositive pot is unavoidable. Jayadeva has made it clear in a previous context: "*Etac ca svarūpajñāta-buddhiviśeṣasyaivābhāva-vyavahārakatvam iti mate, yadā tu pratiyogimadadhikaraṇajñānabhinnatvena jñātaṃ jñānaṃ vyavahārakaṃ tadā grahaṇāyaiva pratiyogijñānāpekṣeti draṣṭavyam*" (*TCA*, p. 706). In line 9 of the passage, read '*jñātam*' instead of '*jñānam*'.

38. TRANSLATION: Moreover, since there is no consecutive character to the various loci or to the various cognitions of loci, one cannot explain [by the Prābhākara theory] how a consecutive verbal expression (i.e., *vyavahāra*) 'absence' is [applied to them]. It cannot be urged against us, who hold that absence is a separate entity, that the same difficulty will arise since there is no such thing as a consecutive absence-ness. For, even without a consecutive absence-ness, [it is possible that] by means of mutual absence, e.g., of cloth, which is a unitary entity, one has an expression that is consecutive [with one type], as seen from nominative denials in the form "a pot is not a cloth," ["a tree is not a cloth,"] etc. Likewise, by means of constant absence, which is unitary, we have an expression that is consecutive [within another type], as seen in "cow-ness is not in a pot," etc. In like fashion, by means of destruction, i.e., posterior absence, which is unitary, we have an expression that is consecutive, as seen in "the pot is destroyed now," spoken when the [broken] pot halves are on the ground [after being smashed by a hammer]; and by means of prior absence, which is unitary, we have an expression that is consecutive, as in "the pot is not [yet] in these [pot halves]," as spoken at the time just before the pot has been fashioned [from the halves]. Thus, four consecutive expressions of denial are constructed on the basis of four particular entities. But by your theory the four types of absence would be impossible, for there is no consecutive character in the loci or in the cognition of each of such

loci; and our verbal expressions of these four consecutive absences could not be explained by means of cases of absence that are each unique. Thus the four particular absences stand proved as independent entities. How even these four can be taken as the object of a single word [or, as forming a single category] by means of [a nonconsecutive property,] absence-ness, will be explained shortly.

NOTES: The problem of *anugama* (consecutive character) is here critically examined by Gaṅgeśa. Whenever we cognize and speak about divergent entities by using a common name for them, it becomes philosophically relevant to find a common basis for such divergent entities. The Nyāya practice is to use the grammatical device of referring to such a common basis by the abstract substantive form (i.e., the form arrived at in Sanskrit by suffixing *-tva* or *-tā*) of the common name in question. But the Nyāya theory demanded that such substantivized and abstracted terms should always be explicable and that it should be quite clear to what they actually referred. The referents of these terms might be identified with one of the fundamental categories or might be described as imposed properties, which are sometimes numerically identical with their loci, or might be taken as merely heuristic properties (see also §§ 8.6, 8.7, and 4.9).

In the present context, the opponent cannot find a common basis for applying the same term 'absence' to the totally dissimilar loci or to the corresponding cognitions of each locus. Gaṅgeśa also faces the same difficulty. He tries to avoid it in the following way. There are four different contexts in which we use the expression 'absence of *x*' in the four following senses: (1) mutual absence of *x* as illustrated in the form "*x* is not *y*," (2) constant absence of *x* as illustrated in the form "*x* is not in *y*," (3) destruction of *x* as illustrated in the form "*x* is destroyed now in *y*," and (4) prior absence of *x* as illustrated in the form "there is not yet *x* in y." I do not know how this version answers satisfactorily all the questions connected with the demand for a consecutive character. Perhaps what Gaṅgeśa implies can be stated as follows. The class of mutual absence is equivalent to the ordered pair of objects determined by the matrix "*x* is not *y*." Similarly, the class of constant absence is equivalent to the ordered pair of objects determined by the matrix "*x* is not *in y*"; the class of posterior absence, by the matrix "*x* is now destroyed in *y*"; and the class of prior absence, by the matrix "There is not yet *x* in *y*." (For the notion of "ordered pair" see Quine, *Methods of Logic*, p. 237. See also Quine, *Word and Object*, pp. 210, 257–258.) Gaṅgeśa speaks here of absence-ness but does not assert it to be a consecutive character.

It is significant to note here that Raghunātha in his *Siddhāntalakṣaṇadīdhiti* (which forms a part of his *TCD*) makes the following remark: "*Abhāvatvaṃ cedam iha nāsti idam idaṃ na bhavatīti pratītiniyāmakabhāvābhāvasādhāraṇaḥ svarūpasambandhaviśeṣaḥ*" (*TCDG*, p. 475). This is another way of explaining the notion of absence-ness. (For a note on the *svarūpa* relation see § 4.9.) Gadādhara tried to explain it further as follows: " 'Absence-ness is a type of *svarūpa* relation (*svarūpasambandhaviśeṣa*)' implies that absence as instantiated in $\sim x$ is the relational abstract *subjunct-hood* as conditioned by the adjunct *x*. (*Tatpratiyogisvarūpanirūpitānuyogitvanāmā sambandhaviśeṣaḥ*)" (*TCDG*, p. 476). The expression '*bhāvābhāvasādhāraṇaḥ*' in *TCD* (quoted above) is significant. Thus the implication

is that '*abhāva*' is used in a technical or specialized sense, not in its derivative sense, and hence can be applied sometimes to presence (*bhāva*) also. (Cf. Gadāhara: "*bhāvenāpi ghaṭe ghaṭatvābhāvo nāsti ghaṭo na ghaṭabhinna iti pratīter jananād iti bhāvaḥ / tadavacchinne cābhāvapadasya rūḍhiśaktiḥ paribhāṣaiva vā, ato na bhāvo-'bhāva ity avayavavyutpattyā taddharmāpratyaye'pi na kṣatiḥ*" *TCDG*, p. 476.) Gadādhara also notes that even if we accept absence-ness as a *svarūpa* relation, we face anew the problem of *anugama* (since we apply the same term '*abhāvatva*' to different situations). Moreover even if absence-ness is accepted as a separate entity, it may differ in different cases of its occurrence, just as a relational abstract differs as its adjunct differs. Thus we are also forced to admit another attribute common to all of them. (Cf. "*na cābhāvatvasya svarūpasambandharūpatve'nanugamād anugatapratyayānupapattiḥ / tadanugamakarūpāntarābhyupagamāt / padārthāntaratve'pi nirūpakabhedena sambandhāntaravat tadbhedasyāvaśyakatayānugamakarūpāntarāpekṣaṇāt,*" Gadādhara, *TCDG*, p. 476.)

39. Translation: [Opponent.] Let us then suppose the following. At that particular time when absence of pot is accepted by others as occurring on the ground, the ground's absence of pot is nothing more than its connection with that particular time segment. In this way we can explain the notion of the superstratum-substratum relation that we have in [the cognition] "there is no pot on the ground," for the connection with the particular time segment occurs in the ground. You may not argue that there will be no *anugama* (consecutive character) if we take the connection with a particular time to be absence, for the same difficulty faces those who regard absence as an independent entity, since absence-ness is neither a *jāti* (generic property) nor an *upādhi* (imposed property). And if you admit some further property [e.g., absence-ness] to exist in order to furnish a consecutive character which may explain our notion of absence, let this extra property reside, for the sake of simplicity, in ground's connection with a particular time segment.

[Answer.] That will not do. Connection with a particular time is [a notion] devoid of any counterpositive and so would be incapable of giving rise to an expression of absence. Furthermore, the particular time just as well as the ground is apprehended as a substratum of absence, for we have such cognitions as "a pot is not on the ground at this time." And a connection with a particular time segment cannot be *in* that particular time segment, because there is no substratum-superstratum relation here, since such relation cannot appear between identical things.

Notes: The letter *r* has dropped out of the word '*sāmarthyāt*' in the text, line 11. Here Gaṅgeśa examines another way of explaining away absence. The opponent says that absence of pot occurring in the ground is nothing but the ground's connection with some particular time (i.e., the moment when a pot is cognized to be absent there). The L-relation, which appears in a so-called cognition of absence, can also be thus happily explained. Absence appears to occur in (i.e., to characterize) the ground. And the particular time connection can be treated as something occurring in the ground. Thus the opponent wants to equate absence with this particular time connection by using the principle of the identification

of indiscernibles. Let us define the class α as the class of all objects that satisfy the open sentence "x occurs in the ground." In symbols: $\hat{x}\, Fx$. Now the identity condition of x and y can be given as follows:

"$x = y$"

for

"$(\alpha)(x \in \alpha \,.\equiv.\, y \in \alpha)$."

The opponent asserts that the schema will be true when x takes absence of pot as its value and y takes a particular time connection as its value.

Gaṅgeśa replies: Absence of pot is also experienced as having a countercorrelate. But the said time connection is not so experienced. Moreover, absence is also experienced as occurring in the time connection. But the time connection is not experienced as occurring in itself. Thus, Gaṅgeśa asserts, absence of pot also satisfies the following two open sentences, which the supposed time connection does not satisfy:

(1) "x has a counterpositive."

(2) "x occurs in the particular time connection."

Hence, the two notions cannot be identical, because their difference is discernible as shown by these two open sentences.

40. TRANSLATION: Again, how does the time segment possess a special character: by its furnishing a base for the absence, or by its being its own peculiar self? If the first, you have admitted absence. If the second, it will lack a consecutive character [as before]. But in my theory an absence that is one individual occurs thus in many different time segments.

Again, from [the ground's] connection with a particular time segment we would have such a cognition and would use such an expression as "the ground (is) at this time" and not "absence of pot (is) on the ground," for a [cognition of a] qualifier x produces a cognition of something qualified by x. Or if you hold that the expression 'absence of pot on the ground' arises simply from [the ground's] connection with this or that particular time segment, you may as well say that what gives rise to the expression 'pot' is nothing more than the connection, with this or that time segment, of the pot halves as qualified by such fusion as there may be when a pot exists in them. You may thus get rid of the [notion of] pot [as a separate entity] altogether. And the cognition [of pot can be explained] in the same way [as we have explained the verbal behavior].

NOTES: The view that the basis for our verbal behavior with respect to absence of pot is to be found in the ground's being related to some particular time segment is examined further.

Gaṅgeśa argues: If one wants to eliminate absence by explaining away our speech behavior in this way, then one can eliminate even an entity like pot from being real, i.e., from being a fundamental entity numerically different from the pot halves, by following the same line of argument. Whenever the parts, i.e., the pot halves, are arranged in a particular way, we call them a pot. Hence it can be argued that the basis for our speech behavior about pot is nothing but the relation of the pot halves to some particular time. Thus a pot is proved to be numerically identical with the pot halves. One need not stop here. In this way we can get rid

of many so-called entities and assimilate them into the connections of some other entities with this or that time segment. The problem eventually leads to the much-discussed controversy about the reality of the whole (*avayavin*) apart from the aggregation of its parts (*avayavasamudāya*).

The Buddhists, of course, would welcome the above conclusion, for they do not accept the reality of the whole apart from the parts. The Prābhākara, however, would not welcome such a conclusion at all. The Buddhists argue that a pot as a single individual whole is a fictitious object and that what we perceive is only a conglomeration of atoms or a cluster of properties. Thus the perceptual cognition expressed as "This is a pot" is an error as far as the characterization of the given x as a whole pot is concerned. Thus Dharmakīrti notes:

> "*sañcitas samudāyas sa sāmānyan tatra cākṣadhīḥ*
> *sāmānyabuddhiś cāvaśyaṃ vikalpenānubadhyate*
> *arthāntarābhisambandhāj jāyante ye'ṇavo'pare*
> *uktās te sañcitās te hi nimittaṃ jñānajanmanaḥ.*"
>
> (*Pramāṇavārttikabhāṣya*, p. 279)

One cannot argue that in a single mode of cognition one cannot grasp innumerable atoms at a time, because we do grasp a heap, say, of sesame seeds, which do not form a single whole. Moreover, the cognition of a many-colored butterfly proves that we can grasp different properties in a single perceptual mode. Compare Dharmakīrti: "*athaikāyatanatve'pi nānekān gṛhyate sakṛt / sakṛd grahāvabhāsaḥ kiṃ viyukteṣu tilādiṣu*" (*ibid.*, p. 280). "*Naikaṃ citrapataṅgādi rūpaṃ vā dṛśyate katham / citran tad ekam iti ced idaṃ citrataran tataḥ*" (*ibid.*, p. 281). Many things have been said against this position from the Nyāya point of view, for the problem of the whole and the parts was a vital problem to the Nyāya system. Śrīdhara argued that properties like the color and taste of a lump of clay from which a pot is made do not undergo any change in the course of their coming to form a pot. But we cognize the pot as different from its components in their former state because of differences in external forms and in the *vilakṣaṇasaṃsthāna* (arrangements of the parts). Compare: "*stambho'yaṃ kumbho'yam iti pratyekavilakṣaṇasaṃsthānasaṃvedanād rūpādisvabhāvasya sarvatrāviśeṣāt*" (Śrīdhara, *NK*, p. 41).

Śrīdhara also makes use of the Nyāya theory of error in order to disprove the thesis that our cognition of a given something as a *whole* material stuff is invariably an error like our cognition of a cluster of hairs as a whole stuff from a distance. The Nyāya holds that in order erroneously to characterize a given X as an A, it is necessary to have a prior cognition of A as such somewhere at some time. This proves the reality of A, although such an A may not occur in the given X. And in the same way the reality of an integrated whole can be proved. Compare: "*atha mataṃ pratyekam asthūlā api paramāṇavaḥ keśasamūhavat saṃhatāḥ sthūlāvabhājo bhavantaś cākṣuṣā jāyante nirantaratayā caikatvenādhyavasīyanta iti cet, kim eteṣu bahuṣu tadānīm ekaḥ sthūlākāro jāyate, kiṃ vā keśeṣv ivāvidyamānaḥ samāropya pratīyate, yadi ca jāyate sa no'vayavīti, athāvidyamānaḥ pratīyate, bhrāntis tarhi, bhrāntiś cābhrāntipratiyoginī, kvacid ekaḥ sthūlaḥ satyo' bhyupeyaḥ, na ca vijñāne tasya satyatā yuktā, sthūlo'ham asmīti pratītyanudayād anekadraṣṭṛsādhāraṇatvābhāvaprasaṅgāc ca*" (Śrīdhara, *NK*, p. 41).

The example of the *citra-pataṅga* 'many-colored butterfly' of Dharmakīrti has given rise to much interesting discussion in the writings of the later Naiyāyikas. Some have contended that *citra-rūpa* (the variegated color) is a separate color like blue or red. Raghunātha, however, rejected such a hypothesis. Compare: "*citram api nātiriktaṃ rūpam, samānādhikaraṇavijātīyarūpasamudāyād eva tathāvidhavyavahāropapatteḥ nīlāder nīlādyatiriktarūpājanakatvāc ca*" (Raghunātha, *PTN*, p. 33).

41. TRANSLATION: By such reasoning, the argument of the following verse [by the Buddhist Jñānaśrī Mitra] is answered.

"We saw the pot, and here we saw the hammer fall;
We saw the fragments too; but absence saw we not.
Where does this thing called absence hide? What is its cause?
A temporal flow of self-dependent parts of a pot is all that we have seen."

It is wrong because we experience destruction [i.e., posterior absence] as a separate entity through our cognition "the pot has been destroyed by the fall of the hammer." The fall of the hammer produces neither a mere ground nor the cognition of a mere ground, for both of these may exist without it. [Again, the verse is wrong] because by your theory those two [i.e., mere ground and cognition of mere ground] are identified with absence in general and so cannot be connected with destruction [which is a particular type of absence]; or if they could be so connected, then absence in general would be destructible.

[Opponent.] Very well, then. Let us say that destruction is nothing more than what according to your theory is the destroyer [e.g., the fall of the hammer]. Or it is the ground together with that [destroyer]. Or it is a cognition of [all these].

[Answer.] No. The destruction is experienced as caused by the fall of the hammer, and a thing cannot cause itself. Again, destruction is experienced as possessing a counterpositive, and the fall of a hammer does not.

NOTES: Read "*āvalī*" instead of "*ābalī*" in line 5 of the passage. This verse will be found on page 167 of the recently recovered *Jñānaśrīmitranibandhāvali*. Destruction of a pot by a hammer is a commonly experienced fact, and the Naiyāyika claims this to be a form of absence. Thus both the opponents, i.e., the Prābhākaras and the Buddhists, examined this doctrine of destruction very minutely in their respective works. Śālikanātha, as a representative of the Prābhākara school, denied the independent status of destruction as an emergent entity after the fall of the hammer. His position is made clear in the following lines (*Prakaraṇapañcikā*, pp. 121–122): "*Na vayam api saṃsṛṣṭa-buddheḥ kāraṇa-vināśam abhāvaṃ brūmaḥ, kintu bhāvāntarodaya eva kāraṇa-vināśa iti brūmaḥ.*" In short, according to him, nothing but the emergence of the broken pieces of pot (which are only another cluster of positive entities) causes our cognition of the destruction of the pot, i.e., our cognition of the mere ground. We cannot say that the destruction of the cause which gave rise to the cognition of ground's being connected with a pot is what is absence, because the destruction of such cause is identical with the emergence of new entities, e.g., broken pieces of pot (*ibid.*, pp. 121–122).

The Buddhist argument is slightly different from that outlined above. To the

Buddhist the destruction of any object is automatic and continuous. Each object that men speak of as stable, by its very nature and without any external cause, undergoes radical change, i.e., destruction at one moment and new emergence at the next moment. What distinguishes the case of the so-called "broken pot" is that a new configuration of a pot fails to emerge.

Jñānaśrī, after giving the verse quoted here by Gaṅgeśa, enters into a long series of arguments to show that the seeming destruction of a pot by an external agent like a hammer is nothing but a figment of the imagination. The whole section is called "*Ahetukavināśādhikāra.*" Even the experiential evidence that a pot is destroyed by a hammer does not stand the test. What we experience is a pot on the ground as well as a hammer, and at the next moment, a cluster of broken pieces on an empty ground. Nowhere does the so-called entity "destruction" enter. Thus analyzed, the notion of destruction vanishes into nothingness. Compare Jñānaśrī: "*sunipuṇaṃ nirūpayanto'pi māṃsacakṣuṣā vayaṃ tāvan nāparam atra vastujātam īkṣāmahe, yad abhāvaśrutyā viṣayīkriyate / . . . yaś ca tatkāraṇaṃ kalpito daṇḍas tasyāpy anvayavyatirekānuvidhāyinī kapālapaṅktir eva dṛṣṭā, nānyā kā cit / vaidharmyadṛṣṭāntatayeyam upanyastā punaḥ, yatheyam adhyakṣānupalambhābhyām anvayavyatirekāv anuvidadhatī dṛśyatayā daṇḍasya kāryam avasthāpyate, tathā yadi nāśākhyam api vastu dṛśyaṃ syād anātmarūpavivekena tasyāpi tarasvidaṇḍakāryatā avāryaiva, na caivam / tasmāt kalpanaiveyam*" (pp. 107–108). The Buddhist *kṣaṇabhaṅgavāda* (theory of universal flux) maintains that all objects are destroyed at every moment automatically and without any external agent. Thus the above arguments are meant to show the automatic fluctuation of all entities as opposed to the view of the Nyāya system, which maintains the reality of solid and stable stuff constituting the world we experience. Jñānaśrī concludes his section as follows: "*Sthitam etan na vināśo nāma parighādibhyo bhinnaḥ kaścin mudgarādisādhyo yas tadanupanipātadaśāyām abhavan bhāvasya sthairyyasiddhimanorathaṃ paripūrayed iti*" (p. 159).

42. TRANSLATION: [Opponent.] But there is no relation between the ground and an absence; so how can there be any cognition of pot-absence *on* the ground? If you say by a *svarūpa* relation, then [one must allow that] an absence of a particular pot, viz., the pot which is in the courtyard, holds a *svarūpa* relation to a ground [viz., some other spot of ground] even though that ground possesses a pot, for the *svarūpa* relation is nothing over and above its two relata, here a ground and an absence [and they are both present]. It will not do to say that the *svarūpa* relation is nothing more than the ascription of a counterpositive and that hence one can only speak of a denial as ensuing upon [such] an ascription, for that explanation leads to a fault of circularity. Only where there is a relation between absence [and its substratum, e.g., ground] do we have an ascription [of a counterpositive, e.g., pot], and [again] it is that ascription itself that acts as the relation between the absence [and its substratum].

[Answer.] These objections are wrong, because x is regarded as a *svarūpa* relation if and only if x is capable of producing a qualificative cognition and at the same time is not subsumed under any other well-known relation. We do not [under normal circumstances] have a qualificative cognition in which ground-

with-a-pot-on-it and absence-of-the-courtyard-pot qualify each other. Just as we accept a *svarūpa* relation between a cognition and its object and between the relation of inherence and its subjunct — because, had we accepted another relation between them, we should run the risk of an infinite regress — so also we accept such a *svarūpa* relation connecting absence with its locus. In this way, absence is proved to be an additional entity. And it is *qualifier-ness* (i.e., a kind of *svarūpa* relation) that acts as the apprehensional connection in apprehending absence.

NOTES: Gaṅgeśa states his own position about the *svarūpa* relation in lines 9–10: "*sambandhāntaram antareṇa viśiṣṭa-pratyaya-janana-yogyatvasya svarūpa-sambandhatvāt.*" Jayadeva remarks that this should be interpreted in a slightly different way. The entity *r* is called a relation only if it actually produces a qualificative cognition. Compare: "*viśiṣṭa-pratyaya-janana-yogyatāliṅgita-svarūpasya sambandhatvād ity arthaḥ / yathāśrute yogyatvasyaiva sambandhatva-prāpteḥ*" (Jayadeva, *TCA*, p. 714).

In a similar context, Jayanta has some remarks that may be relevant here. The *svarūpa* relation in the old school was sometimes called the relation of qualifier-ness (*viśeṣaṇatā*) or the relation of qualifier-qualificand (*viśeṣaṇa-viśeṣya-bhāva*). One may argue that this is only a blanket description of relation in general without further specification, because all the qualifiers are related in some way or other to the qualificand. Thus to call a relation 'qualifier-ness' is to say nothing about the relation. It simply amounts to calling a relation a relation. Thus by calling the absential relation 'qualifier-ness', Nyāya simply avoids an explanation of why absence, if it is an additional entity, appears as related to a locus. Usually where an entity appears as a qualifier, Nyāya specifies such a relation as conjunction or inherence, etc. Jayanta answers this by saying that the objector is wrong in assuming that everything that is related to something actually appears as a qualifier of that thing. The relation between the staff and the staff possessor (*daṇḍin*) is called conjunction. But if a man simply touches a staff with his foot, we do not cognize him as a staff possessor although the conjunction relation is present all the same. Also, it is wrong to assume that everything that appears as a qualifier bears a specific relation to the qualificand. Inherence, for example, although it appears as qualifier, does not have a separate relation to connect it to the qualificand. Thus, Jayanta argues, the relation of qualifier-ness is sufficient explanation for the fact that absence appears as related to a locus in our cognition. The position is similar to the case of the *vyāpti* relation (the relation of concomitance) between smoke and fire or the case of the expresser-expressible relation (*vācya-vācaka-bhāva*) between a word and an object. In the latter cases we speak of their being so related only because they appear to be related in some cognition or other. In the case of absence we ask for nothing new but apply the same method. Compare: "*tatra deśena saha tāvad abhāvasya viśeṣaṇa-viśeṣyabhāvaḥ sambandhaḥ, sa tu sambandhāntaramūla iti, . . . na hy evaṃ bhavati yat sambaddhaṃ tad viśeṣaṇam eva, pādapīḍite śirasi dhāryamāne vā daṇḍe daṇḍīti pratyayānutpādāt / nāpy evaṃ yad viśeṣaṇaṃ tat sambaddham eveti, samavāyasya saty api viśeṣaṇatve sambandhāntarābhāvāt / tasmāt sambandhāntararahito'pi pratibandha iva vācya-vācaka-bhāva iva viśeṣaṇa-viśeṣya-bhāvaḥ svatantra eva sambandhas tathā pratīter avadhāryate*" (Jayanta, *Nyāyamañjarī*, p. 60).

PART III

Raghunātha

15

INTRODUCTION TO RAGHUNĀTHA'S *NAÑ-VĀDA*

In Chapter 16 I shall give a translation of the *Nañ-vāda* of Raghunātha Śiromaṇi along with explanatory notes. The Sanskrit text is reproduced from the appendix to volume II of Part IV (*Śabda-khaṇḍa*) of the *Tattvacintāmaṇi* of Gaṅgeśa (Bibliotheca Indica Edition).

The *Nañ-vāda* is one of the three original essays that Raghunātha wrote on Navya-nyāya, as opposed to his commentaries on the works of others. In Part II of his *Śabda-khaṇḍa* Gaṅgeśa discussed such elements of language as *śakti*, *samāsa*, *ākhyāta*, *dhātu*, and *upasarga*, but did not discuss the import of negative particles in a sentence. Apparently to supplement Gaṅgeśa's discussion on the import of different elements of a sentence, Raghunātha wrote two short but illuminating essays, *Ākhyāta-vāda*, on the import of verbal elements, and *Nañ-vāda*, on the import of the negative particles. In spite of the fact that Gaṅgeśa had a section on the import of the verbs, Raghunātha's *Ākhyāta-vāda* was treated with great respect and was commented upon by scholars like Mathurānātha and Rāmacandra (see Gaṅgeśa in *TCM*, Part IV, vol. II, pp. 867–1009). Since Gaṅgeśa did not have a section dealing with the meaning of negative particles, it is no wonder that Raghunātha's *Nañ-vāda* was held in high esteem. His essay was commented upon by different authors at different times, of which I mention the following (as noted by D. C. Bhattacharyya in his *Baṅge Navya-nyāya Carcā*, Calcutta, 1952; my page references following each name below are to his book):

1. Gadādhara Bhaṭṭācāryya (p. 179); his commentary is included in *TCM*.
2. Kṛṣṇadāsa Sārvabhauma (p. 115).
3. Rāmabhadra Sārvabhauma (p. 127).
4. Bhavānanda Siddhāntvaāgīśa (p. 135); the anonymous commentary included in *TCM* has been identified by D. C. Bhattacharyya as Bhavānanda's.
5. Rāmacandra Nyāyavāgīśa (p. 175).
6. Jagannātha (p. 191).
7. Rāmakṛṣṇa Bhaṭṭācāryya Cakravartī (p. 170).
8. Rudra Nyāyavācaspati (p. 274).
9. Viśvanātha Siddhāntapañcānana (p. 276).
10. Raghudeva Nyāyālaṅkāra (p. 279).

Some fragments from the commentary of Raghudeva were printed in the

Vācaspatya (to be abbreviated as *Va*) of Taranatha Tarkavacaspati (an encyclopedia in Sanskrit written in the nineteenth century) under the word 'nañ' (pp. 3941–3949). In my Notes I shall use these fragments extensively, especially in order to ascertain variants to the *TCM* reading of the text of Raghunātha. Besides Raghudeva's, I shall use the commentaries of Gadādhara and Bhavānanda whenever necessary. These three are the only commentaries to which I have had access.

The arguments presented in the *Nañ-vāda* are on the borderline of linguistics and philosophy. Thus the results that Raghunātha arrives at here are, for the most part, dependent on the peculiarities of the Sanskrit language. Besides, Nyāya adopted a definite model for the semantical analysis of sentences as well as for interpreting syntactic structure. This model is sharply distinguished from that of the school of Grammarians. To mention one among many differences, Nyāya holds that the principal element of a sentence is the nominative, or to be precise, the word that is inflected with the nominative case ending, while the Grammarians maintain that the verb or the verbal phrase is the principal element. Raghunātha, being a Naiyāyika, maintains the Nyāya model throughout his works. To illustrate the point between Nyāya and the Grammarians, I shall give a very simple example. Consider the sentence:

(i) "*Rāmaḥ pacati* (Rāma is cooking)."

According to Nyāya, (i) denotes

(ii) "*pākānukūlakṛtimān Rāmaḥ* (Rāma possessing an activity conducive to the cooking [of food])."

Here the main element ("the center of interest" of the sentence) is Rāma, and the meanings of all other elements are subordinated to Rāma and are hence described as qualifiers or attributes of Rāma. This is so because of the stipulation of the Nyāya school that the word with the nominative case ending must be singled out as denoting the chief qualificand. According to the Grammarians, (i) denotes

(iii) "*Rāma-kartṛkaḥ vyāpāraḥ pākānukūlaḥ* (An activity conducive to the cooking [of food] and having Rāma as its agent or possessor)."

Here the meaning of the verbal element is made the principal element, the center of interest. The analysis of a sentence in such fashion as (ii) and (iii) is called *śābdabodha* (literally, that which is understood by the words). Example (ii) is the Nyāya *śābdabodha* of (i); example (iii) is the Grammarian *śābdabodha* of (i).

A few remarks on the concept of *śābdabodha* are in order here. '*Śābdabodha*' literally means *bodha* (cognition) derived from *śabda* (speech or utterance). Speech is regarded as a separate source of knowledge (i.e., as a *pramāṇa*) by several schools of Indian philosophy, including the Naiyāyikas. The utterance of a sentence generates in the hearer a *śābdabodha*, whereupon we say that the hearer has understood the meaning of the sentence. That which expresses the cognitive content of such understanding is also called the *śābdabodha* of that sentence. It is the usual practice of the Naiyāyikas as well as the Indian philosophers in general to analyze the content of a qualificative cognition into the qualifiers and the qualificands, as we saw in Chapter 2. Thus a *śābdabodha*, being generally a qualificative cognition generated by the utterance of a sentence, can always be expressed

in this way. From one point of view, we may describe the *śābdabodha* as giving the meaning of the sentence. It is true that when a sentence is uttered it has always an assertive force; but the content of the cognition generated by it need not contain this assertive force. Thus we might say that a *śābdabodha* is the analysis of the meaning of the sentence without this assertive force. A *śābdabodha* cannot contain a finite verb, as far as the Naiyāyikas are concerned, since they analyze the finite verb as a qualifier. In general, a *śābdabodha* specifying the meaning content of a sentence always settles on just one chief qualificand (although the qualificand chosen differs depending on whether the chooser is a Naiyāyika, Vaiyākaraṇa, or Mīmāṃsaka). This may be explained in the following way. A simple (non-compound) sentence can be looked upon as the assertion of a complex term, and that complex term might be said to denote or purport to denote some entity. We can call such an entity the chief qualificand of the corresponding *śābdabodha*. The meanings or significances of other constituent elements of that complex term are analyzed as qualifiers, or qualifiers of qualifiers, and hence are gathered around the chief qualificand as their nucleus. Thus, when the Nyāya says

"*Caitraḥ pacatīty atra pākānukūlakṛtimāṃś Caitra iti śābdabodhaḥ*"

we may interpret their analysis as

"The sentence 'Caitra cooks' denotes Caitra as possessing an effort conducive to the cooking of food."

From another point of view, a *śābdabodha* can be called a 'paraphrase' (in a very special sense of this term) inasmuch as it gives the meaning of the sentence concerned. It is well known that to express the meaning of an utterance, or even to express the denotation of a word, we use another utterance or word. This has given rise to many serious problems in philosophy, especially in modern times. Moreover, when we utter a second sentence in order to give the meaning of a first sentence, the assertive force seems to be expressed therewith. It is not certain whether the meaning of a sentence should also contain its assertive force. There is no happy way of expressing the meaning content of a sentence as divorced from its assertive force unless we indulge in the construction of some highly artificial language. This involves many problems which lie beyond the scope of this book. To avoid complications, I shall usually call a *śābdabodha* an analysis of the sentence concerned. In some cases, however, my expression for *śābdabodha* will be prefixed by such expressions as "under the Nyāya interpretation, this sentence means . . . ," by which is meant that the *śābdabodha* of the sentence, according to the Naiyāyikas, will be what follows that expression. While I am conscious of the awkwardness of such formulations, I shall use them as a convention.

I now proceed to the translation of Raghunātha.

16

NAÑ-VĀDA
A DISCOURSE ON THE SIGNIFICANCE OF NEGATIVE PARTICLES
(Translation and Explanatory Notes)

1. TRANSLATION: [Each of the particles referred to by the symbol] *'nañ'* may mean either a relational absence or a mutual absence.

NOTES: The symbol *'nañ'* stands, in general, for all the negative particles in Sanskrit. Thus the free particles *'na'*, *'no'*, etc., and the bound particles *'a-'* and *'an-'* in compounds are included under this general name. Such a particle, by virtue of its denotative function (*śakti*, as opposed to *lakṣaṇā*, indicative function: see § 3.4), designates two types of absence — relational absence and mutual absence. These two types of absence are generally distinguished in the following way. In the first, it is denied that the counterpositive occurs by some relation other than the relation of identity in some other entity called the subjunct; in the second, it is denied that the counterpositive is in a relation of identity, i.e., is identical, with the subjunct (see also § 11.11).

The following couplet is quoted by the grammarians to enumerate the six senses in which the particle *'nañ'* is used in compounds:

"tat-sādṛśyam abhāvaś ca tad-anyatvaṃ tad-alpatā
aprāśastyaṃ virodhaś ca nañ-arthāḥ ṣaṭ prakīrtitāḥ"—

(i) similarity, as in '*a-brāhmaṇaḥ* (like a brahmin)';
(ii) (relational) absence, as in '*a-pāpam* (absence of sin)';
(iii) difference or mutual absence, as in '*an-aśvaḥ* (other than a horse)';
(iv) smallness or scarcity, as in '*an-udarā kanyā* (a girl with a thin waist)';
(v) impropriety, as in '*a-paśavo'nye* (other animals are ill-suited [for the sacrifice in question])';
(vi) contrariety, as in '*a-dharmaḥ* (contrary to merit, demerit)'.

Of these six, the Naiyāyikas choose only two and assert that they are what is primarily denoted by *'nañ'*. The rest are secondary to these primary meanings. Even in the grammarians' tradition, we find that *'nañ'* is admitted to denote primarily absence. Patañjali characterized *'nañ'* as *'nivṛtta-padārthaka'* under Pāṇini's rule 2.2.6. Kauṇḍabhaṭṭa (pp. 359–360) explained this as *'abhāvārthakaḥ'* ('that which denotes *absence*').

The question arises whether we should accept two different *śaktis* (denotative functions) with regard to the two types of absence, or by *lāghava* (logic of sim-

plicity; see § 10.2) accept only one *śakti*, by which the particle '*nañ*' will denote absence or *abhāva* in general. Two possible answers have been suggested by Gadādhara in his commentary on the *Nañ-vāda*.

(a) There is a radical difference between the concept of relational absence and that of difference or mutual absence. Relational absence is illustrated by the cognition "There is no pot on the ground," mutual absence by "This cloth is not a pot." Raghunātha perhaps claims here that the meaning of 'no' in the first example differs fundamentally from that of 'not' in the second, and hence we must accept this necessary heaviness (*gaurava*), viz., two different denotative functions of the negative particle (in Nyāya terminology, two *śaktis* of 'nañ').

(b) It may be that the text of Raghunātha does not imply that there are two different *śaktis* in '*nañ*' but only indicates that there are two different syntactical constructions with regard to the two types of absence illustrating two different semantical rules. These rules are as follows: (1) To know that a relational absence is meant by '*nañ*', it is required to know that the negated word is accompanied by another word with the locative case ending. (2) To know that a mutual absence is meant by '*nañ*', it is required to know that the two terms (one expressing the adjunct and the other the subjunct) have the same case termination. This view has been referred to by Gadādhara as that of the right thinkers (*ṛjavaḥ;* cf. Gadādhara in *TCM*, Part IV, vol. II, p. 1015), but it needs amplification (see Notes to passage 3, below).

2. TRANSLATION: In either case the property of being the counterpositive must be taken to be delimited by the property that also delimits the relational property *anvayitā*-to-*nañ* (i.e., the intensional property of being syntactically connected to *nañ;* see Notes below). This rule derives from the conventional manner of interpreting sentences. Thus one does not say, "A pot is not on a place which has a blue pot" or "A blue pot is not a pot," whereas one does say, "A yellow pot is not on this place which has a blue pot" or "A yellow pot is not [a] blue [pot]," etc.

NOTES: Where '*ghaṭa* (a pot)' is syntactically connected with '*nañ*', '*ghaṭa* (a pot)' is said to be an *anvayin* (syntactical correlate) to '*nañ*'. There will then come to reside in '*ghaṭa*' a relational abstract *anvayitā* to '*nañ*', which one might translate as the relational property of being that which is syntactically connected to '*nañ*'.

The text anticipates the following difficulty. When an absence of pot is referred to in Sanskrit, whether it is the absence of a definite pot or an indefinite pot or all pots in general is not usually specified. As much as this is left ambiguous, it may be argued that since another pot is absent from a place where a particular pot is present, why shouldn't we say that there is absence of pot there also? And similarly, why not say about a particular pot (which is certainly not identical with a second pot) that it is also not [a] pot? The text seeks to avoid such confusion by specifying the delimitor of the property of being the counterpositive, i.e., the counterpositive-ness involved in each instance of absence.

The point can be explained as follows:

(1) "s_1 has an absence whose counterpositive-ness is *delimited* by pot-ness," is roughly contradictory to any of the following three:

(2) "s_1 has a pot on it."

(3) "s_1 has a blue pot on it."

(4) "s_1 has a yellow pot on it."

But,

(5) "s_1 has an absence whose counterpositive-ness is delimited by both potness and blue-color"

is contradictory only to (3), not to (2) or (4).

Note that the relational property *anvayitā* and counterpositive-ness reside in the above cases in the same entity and hence can very well be said to have the same limitor or delimiting property.

3. Translation: The syntactical binding of the counterpositive and that of the absence will be homogeneous in all respects. On this principle, if the binding of the adjunct presented (i.e., denoted) by word x to its subjunct is by some superstratum-substratum relation, this will hold also in the case of the relational absence of that [denotatum of x]. For example, in "*Caitraḥ pacati*" and "*Caitro na pacati*," ["Caitra cooks" and "Caitra does not cook"], just as that which is denoted by the word ending in the nominative case [viz., *Caitraḥ*, *Caitro*] is related to the effort expressed by the personal ending of the verb [the '*ti*' of '*pacati*' in the first sentence], just so will it be related to the absence of that [effort, an absence expressed by '*na*' in the second sentence]. The examples "*Caitrasyedam*" and "*Caitrasya nedam*" ["This is of (i.e., belongs to) Caitra" and "This is not of (i.e., does not belong to) Caitra"] should likewise be homogeneous.

Notes: The present passage solves a difficulty that will arise from too simple a differentiation between a '*nañ*' expressing a relational absence and a '*nañ*' expressing a mutual absence. It was said (see Notes to passage 1, above) that where *nañ* is construed with a word in the locative case as its subjunct, it bears the sense of relational absence. That is true, but it expresses a relational absence in other cases also. In "Caitra does not cook" and "This is not Caitra's," '*nañ*' expresses relational absence, although it is construed in the first case with a nominative as its subjunct and in the second case with a genitive. We may leave unchanged the syntactical rule for mutual absence — '*Nañ*' connecting two nominatives as subjunct and adjunct expresses a mutual absence — but we need to expand the rule for relational absences to include the test examples. After including them, we must show the syntactical homogeneity of affirmative and negative statements for them as we did for examples involving the locative case.

Let us first analyze the examples into the Nyāya *śābdabodha* (see Chapter 15, end), remembering that in this analysis the focus of the sentence is always the nominative and also that '*nañ*' is always construed with the adjunct, i.e., the predicate element. For "*Caitraḥ pacati* (Caitra is cooking)" we get:

pākānukūlakṛtimān Caitraḥ (Caitra possessing an effort conducive to cooking).

For "*Caitrasyedam* (This is Caitra's)" we get:

Caitra-nirūpita-svatvavad idam (this [object] possessing the property of being possessed, a property conditioned by Caitra).

In the first *śābdabodha*, the qualifier, effort, is said to characterize its subjunct, Caitra. In the second, the property of being possessed (*svatva*), which is expressed in the original sentence by the genitive suffix of 'Caitra', is said to characterize

its subjunct, this object. When negative particles are inserted in the two sentences, the resulting negative *śābdabodhas* will be perfectly homogeneous with their respective affirmatives. Accordingly, for "*Caitro na pacati* (Caitra does not cook)" we get:

pākānukūla-kṛty-abhāvavān Caitraḥ (Caitra possessing an absence of such effort as is conducive to cooking).

And for "*Caitrasya nedam* (This is not Caitra's)" we get:

Caitra-nirūpita-svatvābhāvavad idam (this [object] possessing an absence of the property of being possessed, a property conditioned by Caitra).

Thus, if before the insertion of '*nañ*' the statement is interpreted as expressing an identity relation, when '*nañ*' is inserted, it will accordingly express a mutual absence or difference. (Compare Bhavānanda: "*tathā ca tattat-padopasthāpyasya pratiyogino'nuyogyanvayabodhe yad apekṣitaṃ tatra tadabhāvānvayabodhe'pi tad apekṣitam ity arthaḥ paryavasyati*," *TCM*, Part IV, vol. II, p. 1033.)

4. Translation: The genitive case ending [as used in examples like "This is not Caitra's"] and similar grammatical devices express the relation of being possessed (*svatva*) [resident in this object] as conditioned by Caitra [as the possessor], and not the relation of being the possessor (*svāmitva*) which is resident in Caitra, for the latter is a relational property, which does not occur in this object, the subjunct, and if one used it in defining the sense of the genitive, one might as well say "This is not of Caitra" [meaning thereby, this does not have the property of being the possessor of Caitra, i.e., this is not the possessor of Caitra] with respect to a piece of wealth, even if that piece of wealth did belong to Caitra. [One could not reinterpret the meaning to be "This is not that which conditions Caitra as possessor"] because *nirūpakatva* (the relation of being a conditioner) can never serve as the limiting relation of being the counterpositive [since in all cases of relational absence such a limiting relation must always be occurrence-exacting, i.e., *vṛttiniyāmaka;* see § 5.4]. This is the general direction [in which one must proceed. The student may work out the particular examples himself.]

Notes: A relational absence, according to Nyāya, is expressed by a negative statement that denies that such-and-such a property occurs in such-and-such a subjunct by such-and-such a relation. Thus the limiting relation in such cases is, by definition, an occurrence-exacting relation (see § 5.4). Now let us consider the paradigm case for the genitive case ending:

(1) "This (object) is Caitra's."

We might explain the genitive case ending as expressing either the relation of *svāmitva* (being the possessor) or the relation of *svatva* (being possessed) and accordingly analyze in either of the following ways:

(2) *Caitra-niṣṭha-svāmitva-nirūpakam idam* (this [object] conditioning the possessor-ship [*svāmitva*] resident in Caitra),

(3) *Caitra-nirūpita-svatvavad idam* (this [object] possessing the property of being possessed, a property conditioned by Caitra).

Of these analyses, the above text says that (3) is preferable for the following reason. Suppose that the object expressed by 'this' actually belongs to Caitra. Now the statement

(4) "This (object) is not of Caitra"

is a false statement. But by analyzing it after the manner of (2) we get:

(5) *Caitra-niṣṭha-svāmitvābhāvavad idam* (this [object] having an absence of the property possessor-ship which is resident in Caitra).

Now, (5) looks like an analysis of a true statement because it simply denies that the relation possessor-ship occurs in the object. But no matter whether the object belongs to Caitra or not, such a relational property cannot occur in the object. This fact leads to confusion. Thus, where (4) is false, its *śābdabodha* should reveal its falsity. On this score analysis (3) is preferable, for as the negation of (3) we get:

(6) This (object) possessing an absence of the property of being possessed, a property conditioned by Caitra (see Notes on passage 3 above).

One may object that analysis (5) could serve if it were rephrased as

(7) This (object) not conditioning the possessor-ship resident in Caitra.

Analysis (7) cannot represent a true fact when the object actually belongs to Caitra because in that case the possessor-ship relation is actually conditioned by the object in question.

Raghunātha replies that such a rephrasing is wrong. Analysis (7) implies that there is an absence of such a possessor-ship in the subjunct, the object. In other words, the possessor-ship relation that is resident in Caitra is said to be absent from the object through *nirūpakatā* (the relation of conditioning). Thus the limiting relation with respect to such an absence will be a conditioning relation, not an occurrence-exacting relation. This goes against the Nyāya conception of a relational absence (see the last portion of § 5.4). (For the notion of the limiting relation of counterpositive-ness, see § 9.5.) To put it simply, we can say that given the fact that x is cognized to be absent from y with respect to a relation z, and given the fact that, if x had been in y, x would have been cognized to occur in y by such a relation z, then z is the limiting relation with respect to the absence of x. Thus, to say that x is absent from something y through a non-occurrence-exacting relation would be a contradiction. Hence, the rephrasing of (5) as (7) is wrong. Compare Gadādhara: "*vṛttyaniyāmakasambandhāvacchinna-saṃsargābhāvasyāprāmāṇikatvāt, yena hi sambandhenāyam iheti pratyayaḥ tatsambandham ādāyaiva nāyam iheti pratyayaḥ*" (*TCM*, Part IV, vol. II, p. 1038). Also see Bhavānanda: "*vṛttitāniyāmakasambandhapuraskāreṇaiva sarvatrābhāvapratītir asti*" (*ibid.*, p. 1040).

5. Translation: Where a superstratum-substratum relation cannot be otherwise obtained as the [intended] 'relational seam' (*saṃsarga-maryādā*), the locative case ending becomes necessary in the word expressing the subjunct (*anuyogin*), e.g., "There is a pot *on* the ground" and "There is no pot *on* the ground." Here, depending upon the intention of the speaker, one (the hearer) may understand an absence of pot [to occur] on the ground or an absence of occurrence-on-the-ground [to occur] in the pot. It is because of this [second alternative] that the cognition "There is smell in earth and not in water" is felt to have only one qualificand [*viśeṣya*, i.e., smell, and two qualifiers, viz., occurrence-in-earth and absence-of-occurrence-in-water].

Notes: Nyāya holds that a relational absence as expressed by '*nañ*' in a sentence should be connected with the subjunct by an L-relation. The L-relation is

usually expressed by the locative case ending on the word expressing the subjunct. But sometimes an L-relation may be obtained through other syntactic devices, where the use of the locative ending is not necessary. Thus in the example "Caitra does not cook" the subjunct Caitra does not have a locative case ending, because the personal ending of the verb denotes an effort that will naturally be taken to occur in the agent Caitra without the employment of a locative suffix.

Tātparya (the intention of the speaker: *vaktur icchā tātparyam*) is also regarded as a factor in determining the meaning of a sentence (see § 2.11). The notion of *tātparya-śakti* of the traditional school is usually related to the notion of *saṃsarga-maryādā* in Navya-nyāya. (On this point, see G. Sastri, *The Philosophy of Word and Meaning*, pp. 234 f.)

Consider the sentence:

(1) "*Bhūtale na ghaṭaḥ* (There is no pot on the ground)."

Nyāya says, the speaker may mean either

(2) "The ground has an absence of pot"

or,

(3) "The pot has an absence of occurrence-on-the-ground."

In one case we construe '*nañ*' directly with '*ghaṭaḥ*', the nominative, while in the other case we construe '*nañ*' indirectly with the locative, '*bhūtale*'. But uncritical conventionalism may prefer (2) to (3), because it is only natural that the locative case in '*bhūtale*' (= '*bhūtala-*', i.e., 'ground' + the locative '*-e*') should indicate that ground is the subjunct where the absence occurs. But in (3) the meaning of the locative, instead of indicating the subjunct, becomes itself the counterpositive of the absence expressed by '*nañ*'. The present passage argues that (3) can very well be implied by the speaker of (1) and hence is a plausible interpretation of (1). Thus, instead of analyzing the sentence

(4) "There is smell in earth and not in water"

as

(5) "Smell occurs in earth, and an absence of smell occurs in water,"

one can analyze it as

(6) "Smell occurs in earth and (also) possesses an absence of occurrence-in-water."

Raghunātha says that the cognition arising from (4) is *felt* to have only one qualificand, and hence (6) would be a more natural analysis than (5), in which we have indicated two qualificands instead of one, viz., smell and an absence of smell.

6. TRANSLATION: Some say, however, that what is understood by '*nañ*' is always the absence of the qualifier [as occurring] in its qualificand. Thus there is agreement between the grammatical number (singular, dual, or plural) of the qualificand term and the qualifier term (i.e., of the nouns and the verbs, the nouns expressing qualificands and the verbal phrases expressing qualifiers) in these examples, "*ghaṭo nāsti* (there is not a pot)," "*ghaṭau na staḥ* (there are not two pots)," and "*ghaṭā na santi* (there are no pots)," just as there is such agreement in other affirmative examples like "*ghaṭo 'sti* (there is a pot)." But one should require such persons to find a solution for interpreting the true statement "*jātau na sattā* (there is no being-ness in generic property)," because the qualifier in this case would be

the property of being-inherent-in-generic-property, which is an unexampled property, and if they say that the qualifier in this case might be the property of being-occurrent-in-generic-property-through-a-relation-other-than-inherence and not the former property, then that property might even occur in being-ness, and this would imply that the above statement is false.

NOTES: This passage explains the view of those who hold that the meaning of the locative case ending, i.e., occurrence in something, should be construed as the counterpositive of the absence expressed by '*nañ*'. Thus, in the affirmative example,

(1) "There is a pot on the ground,"

the qualifier will be what is denoted by 'there is . . . on the ground', i.e., the property of occurrence-on-the-ground. It was thus that we obtained the meaning of (3) from (1) in the Notes on passage 5 above. In this way these theorists will construe each negative statement as expressing an absence of the qualifier.

The general rule of grammar is: The qualificand term and the qualifier term must have the same numeral suffixes. Consider:

(2) "There is not (a) pot on the ground"

and

(3) "There are no pots on the ground."

According to the above theorists the qualificand terms in (2) and (3) are 'a pot' and 'pots' respectively, which, accordingly, agree with the qualifier terms 'is not . . . on the ground' and 'are no . . . on the ground' in their grammatical number. Thus the use of similar numeral suffixes in ordinary language indirectly supports the contention of the above theorists.

Raghunātha, however, says that this method of explaining negative statements will not work in the case of the sentence:

(4) "*Jātau na sattā* (There is no being-ness in generic property)."

If we proceed by the method just set forth, we must analyze (4) as

(5) *jāti-vṛttitvābhāvavatī sattā* (being-ness possessing an absence of the property occurrence-in-generic-property).

But an absence of occurrence-in-generic-property presupposes the reality of the property occurrence-in-generic-property, for we cannot talk of the absence of a fictitious property in Nyāya. Now, 'occurrence in generic property' can mean either occurrence in generic property through an inherence relation (*samavāya*) or occurrence in generic property through any relation other than inherence. In the first case the property would be unexampled (*aprasiddha*), having no locus to occur in. The situation can be compared to the problem in modern logic about terms that are meaningful but have no denotation, e.g., Pegasus or the present king of France. One must note that Nyāya does not talk about the linguistic terms as having or not having denotation. Rather, it talks about whether the properties (expressed by words or clusters of words) have any locus to occur in or not. To interpret the Pegasus problem, we may proceed as follows: 'Pegasus' in the "property-location" language of Nyāya is analyzable as denoting the property of being Pegasus, i.e., the property Pegasus-ness. Now, the property Pegasus-ness thus arrived at would be, according to Nyāya, unexampled or fictitious because

it has no locus to occur in, that is, no object possesses this property. In such cases, Nyāya asserts that we cannot even say that such a property is absent or does not occur somewhere. (Compare Udayana's remark "*vastunaḥ pratiyogitā*," *Nyāyakusumāñjali*, chap. iii, verse 2; see also § 2.9, note 34.) Thus, if a sentence is said to express an absence of such an unexampled property, it becomes nonsensical. Hence we cannot explain occurrence-in-generic-property in (5) as occurrence in generic property through inherence.

If, however, we accept the second explanation, i.e., occurrence-in-generic-property-through-a-relation-other-than-inherence, (5) in that case must be regarded as false, because being-ness can actually occur in generic property through some other relation suitably chosen, such as *svarūpa*. But (4) is a true statement and its analysis should reveal its truth. Hence (5) is not a correct analysis of (4).

Bhavānanda, however, suggests that there is a way out. In other words, with some ingenuity (4) can be interpreted to be without fault. He claims that this is why Raghunātha says that "such persons should find a solution," rather than saying that there is no solution; see *TCM*, Part IV, vol. II, p. 1046. One may interpret the word 'being-ness' in (4) to denote inherence-in-being-ness (*sattā-samavāya*) and 'in generic property (*jātau*)' to denote the property of having generic property as subjunct (*jātyanuyogikatva*). These extended denotations can be justified by the *lakṣaṇā* (indicative function) of the words (see § 3.4). Note that in the affirmative counterpart of (4) the property denoted by '*jātau*', namely the property of having-generic-property-as-its-subjunct, would be the qualifier. Thus, (4) can be rephrased as

(6) Inherence-in-being-ness possessing an absence of the property of having-generic-property-as-its-subjunct,

or

(7) The relational property to-be-inherent-in-being-ness not possessing generic property as its subjunct (*sattā-samavāyo jāty-anuyogikatvābhāvavān*).

Compare Bhavānanda: *vastutas tu jātau na sattā ity ādau sattāpadaṃ sattā-samavāya-paraṃ, saptamyarthaś cānuyogitvaṃ, tathā ca jātyanuyogitvābhāvavān sattāsamavāya ity anvayabodhe nānupapattiḥ*" (*ibid.*, p. 1046). Compare also Gadādhara: "*sattāśabdasya sattāsamavāye sattā-pratiyogikatvaviśiṣṭa-sattāsamavāyānuyogikatve vā lakṣaṇayā upapattiprakāraś cintanīyaḥ*" (*ibid.*).

7. TRANSLATION: One philosopher has said that the absence [expressed by '*nañ*'], having been directly connected syntactically with what is expressed by the word with the locative case ending, must [then] be construed with the counterpositive as that counterpositive's qualifier.

NOTES: Under this view, we do not construe a negative sentence as expressing an absence of the qualifier, as we do according to the view propounded in passage 6 above. Nevertheless, we take the word in the nominative case ending to be the qualificand as before, and thereby the agreement in the use of numeral suffixes in the qualifier term and the qualificand term can also be justified (see Bhavānanda, *TCM*, Part IV, vol. II, p. 1047).

Thus, according to this view, the sentence

(1) "There is no being-ness in generic property"

can be explained as

(2) "*jāti-vṛtty-abhāvīyā sattā* (being-ness as related [as being its counterpositive] to an absence that occurs in generic property)."

And the sentence

(3) "There is no pot on the ground"

can be explained as

(4) "*bhūtalavṛttyabhāvīyo ghaṭaḥ* (A pot as related [as being its counterpositive] to an absence that occurs in the ground."

8. TRANSLATION: Where the qualifier and the qualificand are syntactically connected by an identity relation, the interpretative rule is that '*nañ*' expresses a mutual absence (i.e., other-ness or difference), as in the examples "This pot is [a] blue [thing]" and "This is not [a] blue [thing]." The determining factor in such cases is the fact that the qualifier term and the qualificand term must have the same case termination, or [to be more precise] the fact that they do not have different case terminations.

Thus it is that in the (Mīmāṃsā) formula "In sacrifices one utters '*ye yajāmahe*', not in an *anuyāja* sacrifice," since it is desirable to interpret the formula as a single sentence and since it would be an unnecessarily involved interpretation to repeat '*ye yajāmahe*' [in interpreting the second part], a mutual absence of [i.e., a difference from] *anuyāja* sacrifices is intended to qualify sacrifices in general [and thus the interpretation will be "In all sacrifices which are not *anuyāja* sacrifices one utters '*ye yajāmahe*' "].

The case termination in the qualifier term (i.e., '*anuyājeṣu*') is [simply] for making the term an inflected word or *pada* [so that it may be used in a sentence in Sanskrit, which is an inflected language].

NOTES: Nyāya maintains the following conventional rule for interpreting negative sentences. If in the affirmative counterpart of the negative sentence (i.e., in the sentence before the insertion of '*nañ*') the subjunct and the adjunct are related by the relation *r*, then the corresponding negative sentence expresses an absence whose counterpositive-ness is limited by the relation *r*. Thus, if before the insertion of '*nañ*' the sentence expresses an identity relation between the subjunct and the adjunct, then the negative sentence will express a mutual absence.

The controversy over the interpretation of the Mīmāṃsā formula "*yajatiṣu ye yajāmaha iti karoti nānuyājeṣu*" is an old one. At first sight one might take the formula in either of the following ways:

(1) In sacrifices one utters '*ye yajāmahe*', but one does not utter it in *anuyāja* sacrifices.

(2) In sacrifices which are not *anuyāja* sacrifices one utters '*ye yajāmahe*'.

The first contains what the grammarians call a *prasajya-pratiṣedha* (verbally bound negative), the second a *paryudāsa* (nominally bound negative). The two types of negatives can roughly be illustrated as follows:

(3) "One should not eat meat."

(4) "This pot is not blue."

In (3) we construe the negative directly with the meaning of the verbal phrase, i.e., we negate the possible eating of meat. But in (4) the negative is construed

with the adjective 'blue', i.e., we deny the blue-color as qualifying the pot. In other words, in (4) there is an implicit admission that the pot has some other color such as red. But in (3) there is no such implication; it simply states what one should not eat. In short, the negative force or the prohibitive force in (3) is predominant. The following two couplets, which are often quoted in the literature on grammar and poetics, describe this semantic difference in brief:

"*aprādhānyaṃ vidher yatra pratiṣedhe pradhānatā*
prasajya-pratiṣedho'sau kriyayā saha yatra nañ.
pradhānatvaṃ vidher yatra pratiṣedhe'pradhānatā
paryudāsaḥ sa vijñeyo yatrottarapadena nañ.

(That is a *prasajya-pratiṣedha* where the negative is construed [directly] with the verbal phrase; in it affirmation is subordinate and negation (or prohibition) predominant. That is a *paryudāsa* where the negative particle is construed [directly] with a following [substantive] word; in it affirmation is predominant and negation is subordinate.)"

An *anuyāja* sacrifice is a special kind of sacrifice. It can be translated literally as 'an after-sacrifice'. The Mīmāṃsā is agreed that the second interpretation, i.e., (2), is the correct one. The question then arises, if this is a nominally bound negative, why is the negative particle not compounded with the noun *anuyājeṣu*, as Pāṇini would seem to require (*Sūtra* 2.2.6) and as Kātyāyana insists. Śabara answers (on *Mīmāṃsā-sūtra* 10.8.4) by taking Patañjali's interpretation, which claims that Pāṇini meant such compounds to be optional. (See Śabara, pp. 622–623.) For further discussion of the formula in the Mīmāṃsā school, see Mādhavācārya, p. 600; see also Āpadeva, pp. 345–363.

A Mīmāṃsā formula like "*yajatiṣu* . . ." is assumed to occur in some Vedic text, for it is to Vedic texts that the Mīmāṃsā exegesis usually applies. But of "*yajatiṣu* . . ." Franklin Edgerton notes: "I have not found it in this form in any Vedic text, and indeed, I doubt whether it is anything more than a Mīmāṃsā formulation of common and generally recognized ritual usage" (Āpadeva, p. 172).

Gaṅgeśa cites this Mīmāṃsā formula while discussing whether it is obligatory to compound the particle '*nañ*' in a nominally bound negative (*paryudāsa*). He supports the view of Śabara on the option of compounding and remarks: "*subantasambandhe'pi na samāsaḥ vibhāṣādhikārād vikalpena samāsānuśāsanāt*" (*TCM*, Part IV, vol. II, p. 788). He explains "*yajatiṣu* . . ." as follows: "*tenāyam arthaḥ: 'yajatiṣu' yāgeṣu, 'nānuyājeṣu' anuyājavyatirikteṣu ye yajāmaha iti mantraṃ karoti*" (*ibid.*, p. 789).

Raghunātha, here, cites the time-honored example in a new context. He wants to show that when the subjunct term and the adjunct term have the same case ending, even if it is not nominative, '*nañ*' in that sentence expresses a mutual absence. Here, '*yajatiṣu*' and '*anuyājeṣu*' have the same case ending, and hence '*na*' expresses mutual absence or other-ness. Thus the combined meaning amounts to 'sacrifices other than after-sacrifice'.

But there is one difficulty in Raghunātha's interpretation. If '*na*' in '*nānuyājeṣu*' means a mutual absence and the meaning of '*anuyāja*' is construed with it as its counterpositive, then the locative case ending in '*anuyājeṣu*' (= '*anuyāja*' + the

locative ending '*-su*') becomes a useless suffix as it lacks any significance. It is considered a defect of analysis if the meaning of a sentence or a phrase structure is analyzed in such a way that some of its constituents have no meaning to contribute. Keeping this in mind, Raghunātha remarks that the locative case ending in '*anuyājeṣu*' is not at all unnecessary, since it is needed for turning the stem form (*prātipadika*) '*anuyāja-*' into a word (*pada*) employable in a sentence. According to the dictum "*nāpadaṃ śāstre prayuñjīta*," it is not permitted to use uninflected nouns etc. in a sentence in Sanskrit. Referring to this feature of the Sanskrit language, Raghunātha justifies the use of the locative case ending in the adjunct term '*anuyājeṣu*'.

9. TRANSLATION: [The foregoing interpretation of the case ending of '*anuyājeṣu*' as semantically empty leads to no difficulty,] for one needs a mental presentation of what is meant by a case ending, this mental presentation functioning as qualifier [in one's cognition of the meaning of the sentence concerned] only when the meanings of two *nāma* terms (nonverbal stems) are to be understood as connected by some relation other than identity.

NOTES: Pāṇinian grammar analyzes every word into base (*prakṛti*) and suffix (*pratyaya*). Bases are of two sorts: verbal roots (*dhātu*) and non-verbal stems (*nāma* or *prātipadika*). *Non-verbal stems* include certain prefixes and indeclinables as well as the uninflected stems of nouns and adjectives. The usual semantic convention is that the meanings of two nonverbal stems cannot be directly connected with each other in our minds. Some entity, which is referred to (or "meant") by a case ending must be presented to our mind (i.e., must arise as an *upasthiti* or mental presentation) in order to connect the meanings of the two nonverbal stems. Thus, ground (*bhūtala-*) and pot (*ghaṭa-*) remain unconnected images in the mind until the mind is presented with an image of the relation *occurrence* (*vṛttitva*), which is supplied by the meaning of the locative case ending in the sentence "*bhūtale ghaṭaḥ*" ('*bhūtala*' + the locative '*-e*' and '*ghaṭa*' + the nominative '*-s*' or '*-ḥ*') = "(There is) a pot *on* the ground."

But Raghunātha suggests that the case ending in '*anuyājeṣu*' ('*anuyāja*' + the locative '*-su*'; see passage 8) is used not in order to furnish the mental presentation of a relation but with "null meaning" and for a purely sentence-building purpose, namely, to turn the stem '*anuyāja-*' into a *pada* (a connectible word) in a sentence. '*Anuyājeṣu*', of course, is in grammatical agreement with '*yajatiṣu*', thus being unlike the case of '*bhūtale ghaṭaḥ* (a pot on the ground)', where '*bhūtale*' is in the locative and '*ghaṭaḥ*' is in the nominative. But if we extend Raghunātha's interpretation to similar cases, we run into difficulty. In "*nīlo ghaṭaḥ* (a blue pot)" the two words are in apposition; yet if the case ending on the adjective '*nīlo*' is *only* for turning the stem '*nīla-*' into a *pada*, then we cannot construe the meanings of the two *nāma* terms (nonverbal stems) directly, which implies that "*nīlo ghaṭaḥ*" can yield no connected meaning.

Hence Raghunātha now suggests in passage 9 that it *is* possible to construe directly the meanings of two *nāma* terms, e.g., that of an adjective and that of a noun, but only insofar as they are related by identity.

10. TRANSLATION: It is simpler, however, to say [that one needs a mental

presentation of what is meant by a case ending] whenever the two [meanings of nonverbal stems] are to be understood as connected [by *any* relation], but one must then add that the case ending on an adjectival *nāma* term expresses identity. It is the general opinion that in compounds such as '*nīlotpalam* (blue-lotus)' and '*citraguḥ* (brindled-cow-owner)', one is to supply certain case endings which have been dropped [by grammatical rules of elision]. According to this opinion the absence referred to by the phrase '*na rājñaḥ* (not of the king)' is an absence of the relation expressed by the genitive case ending on the word '*rājñaḥ* (of the king)'. So likewise, in the phrase '*nānuyājeṣu*' quoted above, let the negative express absence of the relation of identity expressed by the locative case ending.

NOTES: Passage 10 offers an alternative explanation. The advantage of this explanation is that it is simpler (see § 10.2). In the previous view we made an exception of cases in which the syntactical relation between the meanings of two *nāma* terms (nonverbal stems) is found to be identity (see Notes to passage 9), while under the present view no such exception is necessary. Thus Raghudeva notes in his commentary: "*lāghavenetyādi, lāghavaṃ ca tatra janakatāvacchedaka-koṭāv abhedātiriktasambandhāvacchinnatvāniveśena*" (*Va*, p. 3946).

11. TRANSLATION: There is the opinion [of the Mīmāṃsaka] that [in the sentence "*yajatiṣu ye yajāmahaṃ karoti nānuyājeṣu*"] the negative '*na*' must express a mutual absence, since otherwise there would be an alternative (*vikalpa*) to the prohibition of the act [viz., of uttering '*ye yajāmahe*']. This opinion is wrong. For when a particular [act] is prohibited, the injunction of the general [act, in such context] refers [simply] to what is other [than the particular act]. There is here no chance of an alternative, as may be seen by the understanding of such a sentence as "Yoghurt should be given to the brahmins, [and] should not be given to Kauṇḍinya."

NOTES: Passage 11 uses two technical terms of the Mīmāṃsā school of philosophy, viz., *niṣedha* and *vikalpa*. When '*nañ*' is construed with the optative ending (or any other verbal ending used in the sense of obligation) in a Vedic sentence, we get a *niṣedha* (prohibition). According to the Mīmāṃsaka, *niṣedha* always implies *prāpti*, i.e., the likelihood of occurrence of the prohibited act prior to its prohibition. Cf. "*prāpti-sāpekṣatvāt pratiṣedhasya*" (Āpadeva, p. 263).

Vikalpa means 'alternative', and one of the chief objects of Mīmāṃsā exegesis is to eliminate apparent *vikalpa* in Vedic injunctions and prohibitions. For if one has a *vikalpa*, e.g., "One must sacrifice with rice" and "One must sacrifice with barley," one will be violating a Vedic injunction whichever way one performs the rite. The standard Mīmāṃsā doctrine is that *vikalpa* is a defect and involves eight specific faults (*ibid*., pp. 163–164).

Under this view the ending in '*nīlo*' (= '*nīla-*' + the nominative '*-s*') of the phrase '*nīlo ghaṭaḥ* (a blue pot)' denotes an identity that connects the meanings of the two *nāma* terms (i.e., two nonverbal stems, '*nīla-*' and '*ghaṭa-*') together. Thus the combined meaning of the phrase will be: a pot which is identical with a blue thing.

In a compound of two *nāma* terms, as, for instance, in '*nīla-ghaṭaḥ* (a blue-pot)', the case ending of the prior member is generally elided by the rule of Pāṇini 2.4.71.

Raghunātha says in passage 10 that even in such cases one should imagine the meaning of the appropriate case ending on the adjectival *nāma* term to intervene between the meanings of the two *nāma* terms so that the phrase structure may yield a connected meaning. Otherwise, under this view, the compound word '*nīla-ghaṭaḥ*' in Sanskrit might simply mean a pot and a blue thing as two disconnected entities.

According to the commentators, Raghunātha evidently thinks that this view is not very sound, and hence he refers to it with the words "*iti mate tu.*" Thus Raghudeva notes that when from compounds like '*nīlotpalam* (a blue-lotus)' the identity relation of the meanings of the two *nāma* terms, viz., '*nīla-*' and '*utpala-*', can be easily grasped, the one being an adjective and the other being a noun, it is certainly a far-fetched idea to conceive of the meaning of the *elided* case ending on the adjectival term as intervening between them to account for such connection. Compare Raghudeva: "*mate tv ity anenāsvarasaḥ sūcitaḥ, sa ca tan-mate'pi nīlotpalam ityādau luptavibhakter anusandhānaṃ vināpy anubhavasiddhasya śābdabodhasyāpalāpo draṣṭavyaḥ* (*Va*, p. 3946).

Now suppose one interprets the sentence which gave rise to the present discussion in the first of the two ways explained in the Notes on passage 8, above, viz.,

> "One should recite the words '*ye yajāmahe*' at sacrifices; one should not [recite '*ye yajāmahe*'] at after-sacrifices."

The trouble lies in the fact that after-sacrifices are a particular sort of sacrifice. The Mīmāṃsaka argues that when faced with an after-sacrifice (*anuyāja*), he will have by the above interpretation a *vikalpa*. He will be both prohibited from an act and enjoined to it. To avoid this dilemma, he interprets the negative of the sentence as a *paryudāsa* (nominally bound negative); see my Notes on passage 8. Now there remains no *niṣedha* (prohibitive force); he is simply enjoined to recite '*ye yajāmahe*' in such sacrifices as are not after-sacrifices.

The Mīmāṃsaka has thus arrived at the same interpretation as Raghunātha but for a different reason. In passage 11 Raghunātha states that the Mīmāṃsaka's reason is mistaken. According to Raghunātha, if a general act is enjoined and a specific act x falling under that general act is prohibited, the implication is that the class of all other specific acts apart from x falling under the general act is what is enjoined. Raghunātha quotes an everyday (*laukika*) example, as opposed to a Vedic example:

> (1) "Yoghurt should be given to the brahmins, (but) should not be given to Kauṇḍinya."

This implies that yoghurt should be given to all the brahmins except Kauṇḍinya. Note that the name Kauṇḍinya can only be a brahmin's name. Just as the question of *vikalpa* does not arise in this case, so also it does not arise in the case of the Vedic sentence "*yajatiṣu ye yajāmahaṃ karoti nānuyājeṣu.*" Thus the reason given in the text beginning with "*yattu*" (passage 11) is wrong.

12. TRANSLATION: In the last [everyday] example, one cannot understand [directly from the negative '*na*' that yoghurt should be given to all brahmins] other than Kauṇḍinya, for such an understanding is prevented by the discrepant singular number of the adjunct term Kauṇḍinya.

Notes: Raghunātha argues that '*na*' in a negative statement expresses a mutual absence or absence of identity (i.e., difference or otherness) only if its affirmative counterpart (i.e., the same statement with omission of '*na*') can imply that the adjunct and the subjunct are related by identity. Identity is expressed by the case ending of the adjunct term only when it is the same in all particulars, number as well as case, as the case ending of the subjunct term. Likewise, absence of identity, i.e., mutual absence, is expressed by '*na*' only when it is construed with words (the adjunct term and the subjunct term) bearing such identical case endings. Note that the two words '*brāhmaṇebhyo*' (= '*brāhmaṇa-*' + the dative plural '*-bhyo*') and '*Kauṇḍinyāya*' (= '*Kauṇḍinya-*' + the dative singular '*-āya*') in the sentence "*brāhmaṇebhyo dadhi dātavyaṃ kauṇḍinyāya na dātavyam*" do not bear identical case endings since the grammatical number is different. Thus, '*na*' here cannot directly express lack of identity or mutual absence. In other words, one cannot interpret the sentence

> "Yoghurt should be given to the brahmins (but) should not be given to Kauṇḍinya"

to give the direct meaning

> "Yoghurt is to be given to the brahmins who lack identity with Kauṇḍinya."

Note that the latter sense is implied, but not directly expressed.

13. Translation: For we do not understand the identity or lack of identity of [the meanings] of 'great' and 'king' from the phrases 'of the king of the great [men]' and 'not of the king of the great [men]' as we do from the phrases 'of the king [who is] great' and 'of the king [who is] not great'.

Notes: In the former pair of phrases the adjective '*mahatām* (of the great)' is in the genitive plural, while '*rājñaḥ* (of the king)' is in the genitive singular. In the latter pair, both adjective and noun (adjunct and subjunct) are in the genitive singular.

14. Translation: Granted that one may somehow make out a case for the ability [of '*na*' to express absence of identity] in the sentence "One [is] not two (*eko na dvau*)" [where the case endings do differ in number, i.e., are not identical], nevertheless such an interpretation if applied to our example of yoghurt would leave the 'to be given' in the second sentence without any syntactical connection.

Notes: One may, perhaps, regard the example "One is not two" as forming an exception to the general rule of interpreting negatives. At any rate one cannot apply its interpretation to other instances.

15. Translation: Therefore [viz., since a specific prohibition implies that a general injunction refers to cases other than those specifically prohibited; cf. passage 11], although such an example as "One must not perform the funeral ceremony at night" prohibits the performance of an action, there is no chance for an alternative (*vikalpa*) to arise [when we confront this prohibition with the injunction "One must make an offering to the manes on the calends of a lunar month"]. In the above [prohibitive sentence] the negative should not be interpreted to mean [that the funeral ceremony must be performed at times] other than night, because, even if the ceremony were enjoined for times other than night, one could not rule out the implication that a nocturnal funeral ceremony should [also] be performed because of the injunction "One must make an offering to the

manes on the calends of the lunar month." There is, furthermore, no other scriptural sentence enjoining the funeral ceremony that lacks a [finite] verb, by means of which one could construct [with these] a single statement. And unlike the sentence ". . . *nānuyājeṣu*," this sentence [viz., "One must not perform the funeral ceremony at night (*rātrau śrāddhaṃ na kurvīta*)"] does not lack a separate [finite] verb.

NOTES: It has been said that in order to avoid *vikalpa* (the alternative) to some rite, we must interpret, according to the Mīmāṃsaka, the negative in the scriptural sentences as a *paryudāsa* (nominally bound negative) instead of *prasajya-pratiṣedha* (verbally bound negative). But since Raghunātha resorts to the principle of implication stated in passage 11, even if we accept the verbally bound negative or strong prohibition in certain cases, there would still be no chance for *vikalpa* to arise. It will be ruled out by implication. Consider the following examples:

(1) "One must make offerings to the manes, i.e., perform the funeral ceremony, on the calends of a lunar month (*amāvasyāyāṃ pitṛbhyo dadyāt*)."

(2) "One must not perform the funeral ceremony at night (*rātrau śrāddhaṃ na kurvīta*)."

Statement (1) enjoins the performance of the funeral ceremony at any time on the calends of a lunar month (including both day and night). Thus, '*na*' in (2) must be interpreted as a verbally bound negative, i.e., a strong prohibition, and not as a mere nominally bound negative. We cannot form a single sentence out of (1) and (2), since in (2) there is present a separate finite verb '*kurvīta*' indicating that (2) should be construed as a separate sentence. Moreover, from the injunction of (1), the likelihood (*prāpti* or *prasakti*) of the performance of the funeral ceremony at night cannot be excluded. And a verbally bound negative, i.e., a strong prohibition, is naturally needed to avoid such a likelihood. Thus (2) must be interpreted as prohibiting the performance of the funeral ceremony at night-time (of the calends of a lunar month).

16. TRANSLATION: [The Mīmāṃsaka may argue:] If there is a likelihood of the funeral ceremony's being performed at night [from the injunction which concerns offerings to the manes on the calends], an alternative (*vikalpa*) would arise; and if there is no such likelihood, why should there be a prohibition [to that effect]? For one only prohibits something that is [otherwise] likely [to occur]. In answer we must say that this is a fine theory indeed that the verbal knowledge we receive from such a statement as "There is no fire in a lake" would force us somehow to accept the likelihood of fire's occurring in a lake. If [the Mīmāṃsaka insists that] the prohibition [viz., "One must not perform a funeral ceremony at night"] would be useless [without a predisposition to what it prohibits], we answer that the use of the prohibition lies in the preventing of such nocturnal funeral ceremonies as might arise from a failure to understand the intention of the scriptural injunction [concerning the offerings to the manes on the calends]. [Its true intention is obviously to enjoin performance of funeral ceremonies on the calends of the lunar month *excluding* its night-time, and thus the prohibitive statement is useful only to bring out such significance of the injunctive statement.]

Notes: This passage examines the question whether it is proper to have a prohibitive statement in scripture regarding a course of action unless one were likely, in the absence of the statement, to perform the prohibited act. Although to have a perceptual cognition of an absence of x in a locus y one needs to cognize that x may be hypothetically connected with y, in the case of a *śābdabodha* or a cognition simply from the verbal expression "x is not in y" one does not need to cognize that x may be hypothetically connected with y. Thus, Raghunātha rejects the Mīmāṃsā view with a touch of ridicule. He also points out that even if a predisposition to perform funeral ceremonies at night is denied, the prohibitive statement is not entirely useless.

17. Translation: [It may be objected that if one always interprets prohibitions in this way, there will be no chance for *vikalpa* to occur anywhere, and this would go against the whole tradition of the Mīmāṃsā. In answer Raghunātha says:] There is a *vikalpa* (an alternative injunction) to use the *ṣoḍaśin* [*soma*-cup] or not to use it, because [we find in two scriptural statements] reference to the same object and because there is no other way out.

Notes: The example is an ancient one among the ritualists. It was discussed by Śabara on *Mīmāṃsā-sūtra* 10.8.6. The problem arises thus. In one passage of the *Yajurveda* one reads the statement "*atirātre ṣoḍaśinaṃ gṛhṇāti* (in an *atirātra* ceremony one uses the *ṣoḍaśin* cup)"; in another passage one reads the statement "*nātirātre ṣoḍaśinaṃ gṛhṇāti* (in an *atirātra* ceremony one does not use the *ṣoḍaśin* cup)." Modern scholarship explains the contradiction historically. There were various schools of ritualists in the days before the ritualistic *sūtras* were codified. As Arthur B. Keith notes in his *The Religion and Philosophy of the Vedas and Upanishads*, p. 336, the *atirātra* form of the *soma* ceremony "might be performed without the ṣoḍaśin cup . . . but this is not the prevailing view." In contrast to modern scholarship, the Mīmāṃsakas were not historically minded. They were interested solely in following the Vedic prescriptions, and when the prescriptions contradicted one another, they were in a quandary. In the example under discussion they could not interpret the negative nominally (i.e., as *paryudāsa*), as was done in the example "*yajatiṣu ye yajāmahaṃ karoti nānuyājeṣu*" (see the Notes to passage 8). It would make no sense to say "One should use the *ṣoḍaśin* cup in an *atirātra* ceremony that is not an *atirātra* ceremony," for the objects in view are not general and specific (like a sacrifice and an *anuyāja* sacrifice) but one and the same. Since there was no other way out, they interpreted the negative as *prasajya-pratiṣedha* (verbally bound), and thus, as a result, they grudgingly allowed an option (*vikalpa*) — grudgingly because it was clear that one Vedic prescription would be violated no matter how the priest performed the rite (i.e., the *atirātra* ceremony). As Śabara noted: "*na tatra śakyaṃ vaktuṃ paryudāsa iti, sambandha eva hi na syād atirātravarjitātirātre gṛhṇāti ṣoḍaśinam iti*" (II, 625).

Raghunātha now proceeds, by a stroke of exegetical genius, to suggest a new way out of the ritualistic dilemma.

18. Translation: It makes no sense to interpret the prohibition here to mean that the use of the *ṣoḍaśin* cup is not a means to the desired end, for that is contradicted by the injunction to use the cup. Rather, one should interpret it to mean

that the non-use of the *ṣoḍaśin* cup is a means to the desired end, for semantic convention will permit us to construe the sense of the verbal suffix directly with the absence of what is denoted by that verbal root to which '*nañ*' is attached [in place of construing the sense of '*nañ*' directly with the sense of the verbal suffix].

NOTES: Read "*anartho*" or "*nārtho*" in place of "*artho*" in the text. The *Vācaspatya* reads "*nārtho.*"

The suffix of a finite verb is called *tiṅ* in Sanskrit. Sanskrit and English examples would be the italicized portions of 'paca*ti*', 'apaca*t*', 'cook*s*', 'cook*ed*'. To this suffix Nyāya assigned various meanings (*tiṅ-artha*), which sometimes differ and sometimes agree with the meanings assigned to the suffix by the grammarians and the ritualists. As pointed out above (Notes to passage 3) the *tiṅ-artha* (the meaning of the verbal suffix) in an ordinary declarative sentence is taken by the Nyāya to be *kṛti* (effort). Thus the Nyāya claims the denotation of "Rāma cooks" to be Rama as possessing an effort conducive to cooking. But the present discussion is concerned not with declarative but with injunctive (*liṅ*) sentences, and there the convention is different. The verbal suffix in an injunctive sentence is interpreted by Nyāya to mean 'a means to the desired end'. Thus Nyāya interprets "*svarga-kāmo yajeta* (One who desires heaven must sacrifice)" to denote sacrificing as a means to the desired end for one who desires heaven. The Sanskrit student should note that the distinction of meaning is based on the general import of the passage, not on the particular morphology of the verb. Thus in the example that has given rise to the present discussion — "*atirātre ṣoḍaśinaṃ gṛhṇāti*" — the verb is morphologically indicative, not optative (as may be expected in an injunctive statement). Because of the injunctive context, however, its suffix is interpreted as if it were optative. Thus, we get the interpretation:

"In the *atirātra* ceremony, using the *ṣoḍaśin* is a means to the desired end."

In an interpretation of negative sentences, the negative may be taken with a verb or with a noun. Where it is taken with a verb, Raghunātha has so far followed the usual practice of taking it directly with the *tiṅ-artha* (the meaning of the verbal suffix). Thus "The man does not cook" is interpreted to mean that absence of effort conducive to cooking occurs in the man, where absence is the *nañ-artha* (meaning of the negative) and effort is the *tiṅ-artha*. Now, if one continues with this convention, our ritualistic examples produce the following contradiction:

(1) In the *atirātra* ceremony, using the *ṣoḍaśin* is a means to the desired end.
(2) In the *atirātra* ceremony, using the *ṣoḍaśin* is not a means to the desired end.

To solve the dilemma, the Mīmāṃsakas resorted to *vikalpa*, as we have seen in the Notes to passage 17. Raghunātha suggests taking the *nañ-artha* (the meaning of '*nañ*') not directly with the *tiṅ-artha* (the meaning of '*tiṅ*') but directly with the *dhātv-artha* (the meaning of the verbal root). The negative statement will then be interpreted:

(3) In the *atirātra* ceremony the non-use of the *ṣoḍaśin* is a means to the desired end.

Statement (3) no longer contradicts statement (1). One may note that state-

ments (1) and (2) cannot be true together, while statements (1) and (3) can both be true under certain conditions. The priest may now be happy in the knowledge that whether or not he uses the *soma*-cup, he will be violating no Vedic injunction, and in either case he will go to heaven.

19. TRANSLATION: That is why the Prābhākaras say that the scriptural sentence "One must not eat *kalañja*" should be interpreted as an injunction directed toward the non-eating of *kalañja*. Whether we interpret by one form of syntactical connection or the other depends on the *tātparya* (the intention of the speaker) and so on [e.g., context].

NOTES: In the text, in place of '*atra*' read, with Bhavānanda and Raghudeva, '*ata eva*'. Note also that Gadādhara must have read '*guravaḥ*' in place of '*prābhākarāḥ*'. For '*niyamatas tu*' read, with the *Vācaspatya* (p. 3948), '*niyamas tu*'.

To justify his departure from the traditional interpretation, Raghunātha appeals to the practice of his opponents, the Prābhākara Mīmāṃsakas. In the sentence "*kalañjaṃ na bhakṣayet* (One should not eat *kalañja*)" they also construe the negative directly with the meaning of the root of the verb rather than with that of its suffix.

The prohibition against eating *kalañja* has been argued for so many centuries that everyone has forgotten what *kalañja* means. Mathurānātha (see *TCM*, Part IV, vol. II, p. 201) thinks it may mean an animal killed by a poisoned arrow or perhaps the meat of a certain bird. Edgerton (Āpadeva, p. 164) wants to identify it with red garlic. The point is discussed in the *Mīmāṃsā-sūtra*, 6.2.19 and 20, on which Śabara furnishes the full prohibition as "*na kalañjaṃ bhakṣayitavyam, na laśunam, na guñjanam* (one must not eat *kalañja* or common garlic or hashish)."

The *kalañja* prohibition has caused trouble for the Naiyāyikas as well as the Mīmāṃsakas; see Gaṅgeśa, the *Vidhi-vāda* of the *Tattvacintāmaṇi* (*Śabdakhaṇḍa*), *TCM*, Part IV, vol. II, pp. 197–204. Traditionally Nyāya explains the optative ending in an injunctive statement as meaning *iṣṭasādhanatā* (the property of being a means to the desired end). If one applies this to the *kalañja* prohibition, one gets, "The eating of *kalañja* is *not* a means to the desired end." But one may imagine a man prompted by curiosity who might ardently desire to taste *kalañja*. Thus the scriptural sentence is either trivial or may prove to be false under the above interpretation, for the eating of *kalañja* could not be said in his case to be 'not a means to his desired end'. Gaṅgeśa is forced to a very roundabout method of interpretation. Mathurānātha does better. Taking recourse to *lakṣaṇā* (indicative function), he explains the meaning of the verbal suffix (*tiṅ-artha*) in such cases to be the property of not producing any sin or death. Compare: "*vastutas tu niṣedhavidhau yatra yad aniṣṭaṃ pramāṇāntarasiddhaṃ tadajanakatve vidhipratyayasya lakṣaṇā, tac ca yathāsambhavaṃ kvacit pāpājanakatvam, kvacin maraṇādyajanakatvaṃ ca, tasyaiva abhāvo nañā bodhyata ity eva tattvam iti prāhuḥ*" (*TCM*, Part IV, vol. II, p. 205). Thus the prohibition may be interpreted as "There is absence of the property of not producing any sin or death in the eating of *kalañja*." [This obviously implies that the eating of *kalañja* produces sin or death.]

Rathunātha's method, however, would give the following meaning here: "The not-eating of *kalañja* is a means to the desired end." This has the advantage of

keeping to the traditional *tiṅ-artha* (meaning of the verbal suffix) and no recourse to *lakṣaṇā* (the indicative meaning) is necessary. But this, however, may need qualification for the case of our man of depraved curiosity. Perhaps that is why Rāmabhadra holds to the interpretation which we find in Mathurānātha. Rāmabhadra refers to this view as '*asman-mata* (our view)'. Cf. Rāmabhadra: "*asmanmate kalañjabhakṣaṇaṃ pāpājanakatvābhāvavad ity evārthaḥ / prakṛtyarthe vidhyarthasya pāpājanakatvasya nañā'bhāvabodhanād ato gurūṇām ity uktam*" (*PTN*, p. 128).

What Raghunātha means by the second section of passage 19 is that the usual procedure will be to construe the meaning of '*nañ*' with the principal predication, viz., the *tiṅ-artha*. If this usual procedure runs into contradiction with any other statement of the scripture, then we are forced to follow a slightly different procedure as suggested above. In (2) of the Notes to passage 15 above, if we follow the usual procedure, we do not run into any difficulty. But in the example "*nātirātre ṣoḍaśinaṃ gṛhṇāti* (One does not [i.e., should not] use the *ṣoḍaśin* cup in an *atirātra* ceremony)" such a procedure involves contradiction (see Notes to passages 17 and 18). Thus here too, in order to avoid contradiction or triviality, we are allowed to infer that the intention of the speaker is slightly different. Accordingly, Raghudeva notes "*yatra dhātvarthe vibhaktyarthābhāvabodhe tātparyaṃ tiṣṭhati virodho'pi nāsti tatra tathā bodhaḥ / yatra tu dhātvarthābhāve vibhaktyarthānvayabodhe tātparyaṃ tatra tathaivānvayabodha iti niyamaḥ*" (*Va*, p. 3948).

20. TRANSLATION: [It may be objected that the use of the *ṣoḍaśin* cup is a subsidiary factor of a rite and therefore cannot be a means to the desired end. Only a primary factor of a rite, i.e., the chief act, can lead to a primary goal, that is, to the "end." To this Raghunātha answers:]

While it is true that a subsidiary factor is not the cause of the primary goal, there is no contradiction in allowing it to produce an auxiliary force to what is called the *paramāpūrva* (the unseen religious force that stretches between the rite and the fulfillment of its object). And since the injunction to use [the cup] would otherwise be pointless, the *paramāpūrva* must be rendered stronger by the use of the *ṣoḍaśin* cup. From that we may infer that the primary goal is [also] rendered more perfect. In this way everything fits.

NOTES: The Mīmāṃsā carefully distinguishes primary (*pradhāna*) from subsidiary (*aṅga*) factors in each of the Vedic rites and sacrifices. It likewise specifies for each Vedic injunction whether it is a *pradhāna-vidhi* or an *aṅga-vidhi*. A primary factor is a cause of the *phala* (ultimate goal or result), e.g., the gaining of heaven in the afterlife. The primary factor can accordingly be described as the one which has or possesses the ultimate goal as its result (i.e., is *phala-vat*). A subsidiary factor is defined as "*phala-vat-sannidhāv aphalaṃ tad-aṅgam.*" It is that factor which is present together with the primary factor but does not in itself produce the chief result. Thus in a main sacrifice like *agnihotra*, the *prayāja* oblation or the *dadhnā-homa* (oblation with yoghurt) is considered to be an *aṅga* (subsidiary) factor. Thus the sentence "*dadhnā homaṃ juhoti* (One should make oblation with yoghurt)" is called an *aṅga-vidhi* (subsidiary injunction), while the statement prescribing the *agnihotra* sacrifice is called a *pradhāna-vidhi* (primary injunction).

Now, the ritualist might argue himself out of the dilemma of the *ṣoḍaśin* cup and at the same time condemn Raghunātha's solution by pointing out that the use of the *ṣoḍaśin* cup in the *atirātra* ceremony is stated by *Mīmāṃsā-sūtra* 10.5.34 to be a subsidiary factor. The ritualist thinks that the contradiction between two scriptural injunctions would be serious only when the result (*phala*, i.e., the end in view) of the action enjoined by the one contradicts that of the other. Thus there is no contradiction, or at least no serious contradiction, between the two sentences regarding the *ṣoḍaśin* cup, for both being subsidiary injunctions, there can be no result (*phala*) to contradict.

It is in order to fend against such an argument that Raghunātha here shows that a subsidiary factor, while it may not cause the principal result, is not entirely without result. Thus Bhavānanda notes: "*phala-vat-sannidhāv aphalam aṅgam ity aṅga-lakṣaṇe cāphalatvaṃ mukhyaphalājanakatvam, na tu sarvathaiva phala-śūnyatvam iti bhāvaḥ*" (*TCM*, Part IV, vol. II, pp. 1075 f).

What Raghunātha supposes is that the use of the *ṣoḍaśin* cup produces some special sort of unseen force leading to the ultimate goal. The non-use of the cup will produce a different sort of an unseen force. And the primary result (heaven etc.), while not thereby caused, will be affected, qualified, or colored in one way or another, depending on the unseen force. Thus in the *Śabdakalpadruma* Radha-kanta Dev notes the following under the definition of *aṅga*: "*aṅgasya lakṣaṇaṃ yathā tadīyapradhānaphalajanakavyāpārajanakatve sati tadīyapradhānaphalājana-katvam iti*" (p. 14).

One may add that the series — sacrifice, unseen force or religious merit, and heaven — is entirely consistent with the normal Mīmāṃsā analysis of cause (*kā-raṇa*), operation (*vyāpāra*), result (*phala*, *kārya*). A worldly example would be ax, cutting, the felled tree. Accordingly, the unseen force or religious merit is defined as an operation (*vyāpāra*) intervening between the main action (i.e., the perform-ance of the rite) and the fulfillment of its goal (viz., heaven). The notion of opera-tion in general and of 'unseen force' in particular springs from the metaphysics of causality as conceived in the Mīmāṃsā and Nyāya. In both systems a cause is defined as an immediate antecedent of the effect or result. Cause and result cannot be related if the two are separated by a time gap. What may appear to be a time gap, however, is sometimes not so regarded, but is filled in by what is called the operation (*vyāpāra*) of the supposed cause. In this way the performance of Vedic rites can also be said to be the cause of the ultimate goal (viz., heaven), which comes much later in the life after death through the operation, that is, the *paramāpūrva* (unseen force) in this case. Thus compare Udayana's remark in *Nyāyakusumāñjali*, chap. i, verse 9,

"*ciradhvastaṃ phalāyālaṃ na karmātiśayaṃ vinā*
sambhogo nirviśeṣāṇāṃ na bhūtaiḥ saṃskṛtair api."

21. TRANSLATION: [In a cognition generated by such a sentence as "There is no pot on the ground"] what appears by way of relation between the counter-positive [e.g., pot] and the absence is an adjunct-subjunct relation, [and in a cognition generated by such a sentence as "The ground is not a pot"] what appears by way of relation between the absence and its locus [e.g., ground] is a super-

stratum-substratum relation. [Such relations appear without any case ending having been used] because a case ending is needed in order to present the mind with a qualifier when the meanings of two nonverbal stems (*nāma* terms) are to be construed together in a relation other than identity *only in those cases* where these nonverbal stems are other than particles. That is why no genitive case ending is needed in order to construe the meaning also of such words as '*iva*'.

NOTES: The sentence "*bhūtale na ghaṭaḥ* (There is no pot on the ground)" may be interpreted as "The ground has an absence of pot." The interpretation makes clear that a relation appears between what the sentence expresses by '*na*' and what it expresses by '*ghaṭaḥ*', despite the fact that no case ending is used on '*na*'. The sentence "*bhūtalaṃ na ghaṭaḥ* (The ground is not a pot)" will be interpreted as "The ground has a mutual absence of pot, i.e., otherness from pot," where again a relation appears between what is cognized by '*na*' and what is cognized by '*bhūtalam*'.

In passage 9 (see both Translation and Notes) we discussed the principle that the meanings of two nonverbal stems (*nāma* terms) cannot be directly construed by syntax unless they are related by identity. Accordingly, this passage (21) specifies that we must exclude the class of *nipātas* (indeclinables like '*ca*' and '*na*') from the class of *nāma* terms with regard to such a principle. Thus the meaning of '*nañ*' can be directly connected with the meaning of another nonverbal stem (e.g., the counterpositive) although the relation connecting them is *not* identity.

The same exclusion is needed to explain why no case ending occurs on '*iva* (like)' in the sentence "*candra iva mukham* ([Her] face [is] like the moon)."

But one may object that if the meaning of '*nañ*', i.e., absence, can be construed with the meaning of another *nāma* term by a superstratum-substratum relation even without the intervention of the meaning of a case ending, then why does Gaṅgeśa explain that '*a-*' (an instance of '*nañ*') in compounds like '*aghaṭam*' (in the phrase '*aghaṭaṃ bhūtalam*' — 'a ground that possesses absence of pot') means by its indicative function (see § 3.4) 'possessing absence of' instead of, simply, 'absence'? It is generally agreed that if the meaning of a sentence is well understood by recourse only to the *vācyārtha* (primary meanings) of the constituent words, one must not resort to *lakṣaṇā* (the indicative function). Hence Gaṅgeśa may seem in the above case to commit that mistake. Raghunātha proceeds to answer this objection.

22. TRANSLATION: In expressions like '*aghaṭaṃ bhūtalam* (a ground that possesses absence of pot, or, literally, an un-potted ground)' or '*asamo deśaḥ* (an un-even place)', '*nañ*' [viz., the alpha privative, or, in English, the prefix 'un-'] means 'possessing absence of', in conformity with such facts as the common locus [of the nouns] with the compound [adjectives].

NOTES: The following remark of Gaṅgeśa under the *Samāsa-vāda* of the *Śabda-khaṇḍa* of his *Tattvacintāmaṇi* is referred to here: "*Aghaṭaḥ paṭa ityādau ca prasajyapratiṣedhārthe nañi sāmānādhikaraṇyād abhāvavallakṣaṇā*" (*TCM*, Part IV, vol. II, p. 787).

The expression '*aghaṭam*' in the phrase '*aghaṭaṃ bhūtalam*' is an instance of a *bahuvrīhi* compound. In the other sentence we have in '*asamo*' an instance of a

tatpuruṣa compound. The compound word '*aghaṭam*' should be analyzed to mean '*na vidyate ghaṭo yatra* (where there is no pot)', from which it is clear that the negative particle in the compound should *denote* a relational absence. That is why Gaṅgeśa says "*prasajyapratiṣedhārthe nañi.*" Rucidatta comments "*prasajyeti, saṃsargābhāvaśaktanañītyarthaḥ*" (*ibid.*, p. 787). But since the two component words '*aghaṭam*' and '*bhūtalam*' of the phrase '*aghaṭaṃ bhūtalam*' have the same case ending, it becomes clear that they refer to the same object — one adjectivally and the other substantivally as in the case of '*nīlo ghaṭaḥ* (a blue pot)'. Thus Gaṅgeśa emphasizes that because of their reference to the same locus (*sāmānādhikaraṇyāt*), we should explain the negative particle as indicating 'something that has absence' in this particular construction, instead of taking it to denote simply an absence; otherwise it would be impossible to construe these two component words as referring to the same object. Compare Mathurānātha's comment: "*atra sāmānādhikaraṇyārtham abhāvavallakṣaṇā, yatra na tathā tatra samāse na,*" *ibid.*, p. 787.

Raghunātha anticipates the following objection in the present context. In passage 21 it has been established that the meaning of '*nañ*' can be directly connected to the meaning of another *nāma* term. In that case, the expression '*aghaṭam*' can be construed to denote an absence of pot, which can be considered as related to the ground denoted by '*bhūtalam*' in '*aghaṭaṃ bhūtalam*' by the L-relation, i.e., locus-hood. When explained in this way, Gaṅgeśa's verdict — that the negative particle in the compound '*aghaṭam*' means by its indicative function (*lakṣaṇā*) something that has an absence — might become useless. Note that the indicative meaning or secondary meaning (*lakṣyārtha*) enters into the picture when and only when the sentence concerned does not make any sense or when the speaker's intention is not carried out through the construction of the primary meanings or ordinary denotations of the components in the usual order (see § 3.4). Raghunātha also points out that the force of Gaṅgeśa's verdict lies in the fact that both words of the phrase '*aghaṭaṃ bhūtalam*' refer to the same locus and must be construed accordingly.

23. TRANSLATION: But some hold the following views. The case ending on the counterpositive term may express by its indicative function the property of being the adjunct (i.e., adjunct-hood); or it may express the property of being the subjunct (i.e., subjunct-hood); or a suffix may be [supposed to have been] dropped after '*nañ*', and that dropped suffix may mean by indication 'possessing absence of'; or '*nañ*' itself may have that meaning [viz., 'possessing absence of' by indication].

NOTES: Raghunātha here lists the views of those who do not hold that one should exclude the class of *nipātas*, i.e., indeclinables from the class of *nāma* terms with regard to the semantic principle that meanings of two *nāma* terms cannot be directly construed except by the identity relation. Our text appears to be corrupt. One should strike out the "*na*" at the end of ". . . *adhikaraṇatve-na.*" The text printed in *Va* has a different construction but agrees in sense with the excision I recommend.

The alternative views that Raghunātha sets forth are the following: (1) The

case ending after the adjunct term (e.g., '*ghaṭaḥ*') may mean adjunct-hood. This view presupposes a *śābdabodha* in the form: *bhūtalaṃ ghaṭābhāva-vat* (a ground possessing an absence of pot). (2) It may mean subjunct-hood. This view presupposes a *śābdabodha* in the form: *ghaṭo bhūtala-vṛttitvābhāvavān* (a pot possessing the absence of the property of occurring-on-a-ground). (3) One may suppose that an ending has been dropped after '*nañ*', for example, as would be the case in a compound. But this dropped ending leaves its meaning behind, and that meaning is 'possessing absence of'. (4) One may dispense with reference to the dropped case ending and attribute to '*nañ*' itself the meaning (i.e., the indicative or extended meaning, *lakṣyārtha*) 'possessing absence of'. Note that all four interpretations are to be obtained through the indicative rather than the denotative function of the words in question.

24. TRANSLATION: The particle '*nañ*' itself is not in a position to express a mutual absence of what is expressed by the ending [in examples like "*Caitraḥ na pacati* (Caitra does not cook)"], nor can it express a relational absence of what is meant by the term that has the same case ending as the subjunct term [in examples like "*bhūtalaṃ na ghaṭaḥ* (A ground is not a pot)"]. Therefore one does not understand a mutual absence of effort (*kṛti*, i.e., the meaning of the ending '*tiṅ*'), etc., from sentences like "*na pacati* ([he] does not cook)," "*na rājñaḥ* ([This is] not the king's)," etc., nor does one understand a relational absence of pot, etc., from examples like "*bhūtalaṃ na ghaṭaḥ* (A ground is not a pot)."

NOTES: In our text read '. . . *samānavibhaktikayor*' in place of '. . . *samānavibhaktikasya*'.

One may argue: If, according to the alternative views expressed in passage 23 (see Translation and Notes), we can extend the meanings of the endings or of '*na*' with recourse to the indicative function, why can we not say by the same token that a sentence like "*ayaṃ na pacati* (This [man] does not cook)" expresses a mutual absence of effort (*kṛti*) occurring in the man, and that a sentence like "*bhūtalaṃ na ghaṭaḥ* (A ground is not a pot)" expresses a relational absence of pot occurring on the ground? It would be reasonable, under the alternative views, to hold that the ending on the particle '*na*' (which has been elided because it is an indeclinable) in the first case and the ending on the adjunct term '*ghaṭaḥ*' in the second case express the relation of occurrence, i.e., the superstratum-substratum relation. Thus there would be no difficulty in getting the meanings in the above fashion.

But this argument is wrong. The upholders of the alternative views above answer that we cannot say that '*nañ*' expresses a mutual absence in the first case and a relational absence in the second case above, because '*nañ*' by itself is powerless to yield specific meanings, namely, a mutual absence or a relational absence. It can yield such specific meanings only in accompaniment with other syntactic factors of the sentence in question.

APPENDIX · SANSKRIT TEXTS

The Abhāva-vāda of Gaṅgeśa
The Nañ-vāda of Raghunātha

The marginal numbers in this appendix correspond to the passage numbers in Chapters 14 and 16. The point at which the passage begins is indicated by a vertical arrow in the text.

अथाभाववादः ।

नन्वभावो भावात्मैव ततस्तत्र संयोगादिरेव ग्राहक-
इति न तत्र विशेषणता प्रत्यासत्तिः ।↑तत्र प्राञ्चः । अस्ति 2
तावदिह भूतले घटो नास्तीत्यबाधिता बुद्धिः सा चेयं
न भूतलालम्बना घटवत्यपि प्रसङ्गात् । नापि केवल-
तदालम्बना अतिरिक्तकैवल्यानभ्युपगमात् । भूतलमेव-
कैवल्यमिति चेत्, तर्हि पौनरुक्त्यमधिकं, अभेदे आधा-
राधेयभावानुपपत्तिश्च ।↑ अथाधिकाभाववादिनापि 3
अभावः साश्रयो वाच्यः देशादिनियमेन व्यवहारात् ।
तथाचास्ति भूतले विशेषो योऽभावाश्रयः स न भूतल-
मात्र घटवत्यपि प्रसङ्गात् । नाभावयुक्तमन्योन्याश्र-
यात् । न च घटवत्, विरोधादिति↑चेत् । न । विशेषस्यैव [1] 4
अभावाश्रयत्वात् स चाननुगत एव । एकाश्रयता त्वन-
नुगतस्यापि घटाश्रयतेव भवति ।↑किञ्च कुत्राभाव इति, 5
यत्र प्रतीयेत इत्येवोत्तरं, क्व प्रतीयेत इत्यत्र यत्रास्ती-

त्येव। अन्यथा गोत्वादिकमपि न स्वीक्रियेत तदाश्रय-
6 विशेषादेव व्यवहारसम्भवात् ।↑तथापि कीदृशि भूतले
अभाव इति चेत्, अभावपूर्व्वसमये कीदृशं भूतल-
मिति प्रश्ने घटवदित्युत्तरं, अभावसमयेऽभाववदिति,
मध्यसमयस्तु नास्त्येव, इह भूतले घटोनास्तीत्याधारा-
7 धेयभावप्रतीतेश्च ।↑अभावाधारत्वं भूतलस्य न प्रती-
यते किन्तु तन्मात्रबुद्धिविषयत्वमिति चेत्, अहो
व्याख्याकौशलमनुभवोऽपि व्याख्याय कथ्यते तन्मात्र-
पदार्थानिर्वचनञ्च। न हि भूतलबुद्धिस्तन्मात्रबुद्धिः,
घटवद्भूतलबुद्धेरपि भूतलबुद्धित्वात्। सा बुद्धिर्न भूत-
लस्य किन्तु घट-भूतलयोरग्नीषोमयोरिव देवतात्व-
मिति चेत्। न। ततो भूतलाव्यवहारप्रसङ्गात् भूत-
लस्याविषयत्वात्। आशुभाविभूतलविषयकज्ञानान्त-
रादिति चेत्, तर्हि सैव भूतलबुद्धिस्तन्मात्रबुद्धिरिति
8 तद्देशे घटाभावस्य व्यवहारप्रसङ्गः।↑एतेन भूतले-
न्द्रियसन्निकर्षज-घटवद्भूतलेन्द्रियसन्निकर्षजज्ञानयो-
र्विशेषोऽङ्गीकरणीयः सामग्रीभेदस्य कार्यभेदनियत-
त्वात्। तथाच स एव तन्मात्रपदार्थ इति निरस्तं।
9 ततोऽपि भूतलव्यवहारात्।↑प्रतियोगि-तद्व्याप्येतरज-

निता भूतलबुद्धिरभाव इति चेत्। न। घटवति तज्जनि-
ताया अपीतरजनितत्वात्। तन्मात्रजनिता सेति चेत्।
न। मात्रार्थस्याभावत्वात् तस्य चापरिज्ञानात्। घटा-
विषया सती भूतलविषयेति चेत्। न। उक्तोत्तरत्वात्।
↑किञ्च प्रतियोगिनिरूपणाधीननिरूपणोऽभावो बुद्धि- 10
स्तु न तथा प्रतियोगिप्रकाशं विनापि बुद्धिनिरूप-
णात्। व्यवहारार्थं दृश्यप्रतियोगिज्ञानापेक्षा अभावो
ज्ञात एवेति चेत्। न। व्यवहारस्य व्यवहर्त्तव्योपल-
म्भनिबन्धनत्वेन तथा अदृष्टचरत्वात्।↑ यदि च प्रति- 11
योगिस्मरणसापेक्षा तन्मात्रधीरभावपदार्थः तदान्ध-
कारादौ या तन्मात्रधीः सा अभावो न स्यात्। तथा-
च तत्र विचरन् कण्टकैर्विध्येत कण्टकस्मरणं विना-
कण्टकाभावाभावात्। निर्जने बन्धविच्छेदेऽपि जलनिः-
सरणं न स्यात् तदानीं तन्मात्रबुद्धेः सर्वथाऽभावात्।
किञ्च तन्मात्रधीनाशे घटोन्मज्जनप्रसङ्गः घटाभावा-
भावस्य घटत्वात्।↑यदि चाभावो नातिरिक्तस्तदा यत्र 12
घटसंसृष्टत्वबुद्धिरासीत् कुतस्तत्र तन्मात्रधीः मुद्गर-
पातजन्यातिरिक्तविषयानङ्गीकारात्।↑अतिरिक्ताभावे 13
किं मानमिति चेत्, नास्तीति बुद्धिरेव। नन्वभाव-

14 व्यवहारानुपपत्तिरन्योन्याश्रयादिति ।↑ अत्र प्राभा-
कराः । घटवद्भूतलबुद्धिभिन्ना भूतलबुद्धिरभावव्यव-
हारकारणं । न च दोषात् घटवति घटवत्त्वाज्ञाने
भूतलज्ञानमभावः स्यादिति वाच्यं । घटवतो भूतलस्य
ज्ञानाद्भिन्नस्य भूतलज्ञानस्याभावत्वात् तद्भ्रमाच्चा-
भावभ्रमः । वस्तुतोऽत्यन्ताभावे प्रतियोगिमदधिकरण-
ज्ञानस्याप्रसिद्धेः प्रतियोगिमज्ज्ञानभिन्नमधिकरण-
ज्ञानं व्यधिकरणाभावव्यवहारे कारणं, समानाधि-
करणनिषेधप्रतीतिश्च प्रतियोग्यधिकरणयोः स्वरूपभेद-
मालम्बते । तेन घटवत्त्वेन ज्ञायमानेऽपि भूतले भूतलं
घटो नेति प्रतीतिः । तथाच यस्याभावज्ञानकार-
णत्वं परेषान्तदेवाभावव्यवहृतिकारणमस्तु । न ह्य-
15 धिकरणबुद्धिं विना तद्बुद्धिः ।↑ न च भूतलबुद्धिस्तथा,
घटवत्यपि प्रसङ्गात् । न चाभावाधिकरणभूतलविष-
यत्वाद्बुद्धेर्विशेषः, प्रतियोगिसत्त्वेऽपि प्राङ्नासीदिदम-
त्रेति प्रतीतेः । किञ्च ज्ञानविषयभूतलस्याभावो यदि
विशेषणं तदा अभावज्ञानमेव तज्ज्ञानकारणं, उपल-
16 क्षणं चेत्, न कश्चिद्विशेषः ।↑ प्रतियोगिमत्तयानुपलब्धिरपि
कारणमिति चेत् । न । प्रतियोगिमत्तयोपलम्भेऽपि प्राङ्-

नासीदिदमत्रेति प्रतीतेः, बुद्ध्योश्च विशेषः[१] स्वरूपविशे-
षावेव नान्योन्याभावेऽनवस्थानादात्माश्रयाद्वा। भूत-
लज्ञानापेक्षया घटवद्भूतलज्ञानत्वमेव वा वैधर्म्यभेदः।
↑न चातिरिक्ताभावपक्षेऽप्यन्योन्याभावेऽत्यन्ताभावे च 17
नित्ये मानमस्ति, प्रतियोगिनि बुद्धिस्थेऽधिकरण-
स्वरूपस्यैवानतिप्रसञ्जकत्वात्। न हि तत्राधिकरणस्य
प्रतियोगितादात्म्यं प्रतियोगिमत्त्वं वा सम्भवति। अत-
एवाभावे अभावान्तरं त्वया न स्वीक्रियते[१] अधिकर-
णस्य तद्वैरूप्याभावात्।↑नन्वर्थेनैव विशेषो बुद्धेः, न चा- 18
चार्थभेदोऽस्ति। मैवं। न हि तावदर्थो ज्ञानकारणम-
वश्यं, किन्तु सामग्रीविशेषाद्बुद्धिविशेषो जायते धारा-
वाहिकबुद्धिवत्। यद्वा घटवद्भूतलभिन्नं भूतलमभावः
यत्र परेषामभावः भेदश्च स्वरूपमेव। तादात्म्येनाप्रती-
तौ प्रतीतिरिति तवापि स्वरूपभेदलक्षणं इदानीमिदं
भूतलं घटवद्भूतलं न भवतीति प्रतीतेः। एतावांस्तु
विशेषो यत् तव समानाधिकरणनिषेधप्रतीतिरिय-
मन्योन्याभावभेदमवगाहते, मम तु स्वरूपं[१]।↑ननु 19
यदेव भूतलं घटवद्भूतलाभिन्नमासीत्तदेव कथन्तद्-
भिन्नमिति चेत्। न। तवाप्यबाधितसमानाधिकरण-
निषेधप्रतीतिबलेनान्योन्याभावसिद्धौ तथात्वस्य दुर्वा-

रत्वात्। समयभेदेनैव भेदाभेदौ न विरुध्येते इति
तु समं। यदि च घटवद्भूतलाभिन्नं तदिदानीं स्यात्
तदा घटवद्भूतलव्यवहारस्तत्र स्यात् घट-तदभावा-
वच्छेदभेदेनान्योन्याभाव-तदभावौ भूतले वर्त्तेते इति
चेत्, ममापि भूतलबुद्धिर्घटवद्भूतलबुद्ध्यवच्छेदेन स्व-
20 रूपभेद-तदभावौ[1] वर्त्तेते इति गृहाण।↑ ननु भूतले
घटोऽस्ति न वेति संशयो घटो नास्तीति विपर्य्ययो वा
कथम्भवेत् प्रतियोगिनि बुद्धिस्थेऽधिकरणस्य तज्ज्ञा-
नस्य चाभावस्योपलम्भादिति चेत्। न। भूतले तज्-
ज्ञाने वा घटवद्भिन्नत्वस्य घटवद्भूतलज्ञानभिन्नत्वस्य
21 च दोषवशेनानिश्चयात्।↑ भूतल-तज्ज्ञानस्वरूपाणा-
मननुगमात् कथमनुगतव्यवहार इति चेत्। न। अभा-
वेऽपि तुल्यत्वात्। न ह्यभावत्वं सामान्यं, अभाव-
त्वगतान्योन्याभावाव्यापकत्वात्। न च भावविरोधित्वं,
विरोधस्याभावनिरूप्यत्वात् भावाभावयोः सहावस्था-
नाभावस्य स्वरूपानतिरेकाच्च। नापि भावप्रतियो-
गित्वं प्रतियोगित्वस्याभावविरहरूपत्वात् अभावाभा-
वस्य भावाप्रतियोगिकत्वाच्च[1]। नापि सप्रतियोगि-
कत्वं, समवाय-सादृश्यादीनामपि तथात्वात्। नापि
परकीयस्वभावत्वं, ज्ञानादिगतत्वात् स्वभावशब्दस्य

स्वरूपार्थेऽननुगमाच्च । नापि सत्ताशून्यत्वं, सत्तायामेव
गतत्वात् शून्यत्वस्याभावरूपत्वाच्च ।↑सत्तात्यन्ताभावव- 22
त्त्वमभावत्वं अत्यन्ताभावस्याभावत्वानवगतावप्यवगत-
इति चेत् । न । अभावे अभावानभ्युपगमात् तथात्वे-
ऽपि तत्रैव तदभ्युपगमात् । सत्ताबोधविधुरत्वमभावत्वं,
सामान्यादौ सत्तावगमेऽपि बाधात् सा त्यज्यते अभा-
वस्य तद्विरुद्धतयैव प्रतीतेरिति चेत् । न । विरोधि-
त्वस्य स्वरूपानतिरेकात् । सहानवस्थाननियमो वि-
रोध इति चेत् । न । अनवस्थानस्यावस्थानाभावत्वे-
नात्माश्रयात् । भावभिन्नत्वमिति चेत् । न । भेदस्य
स्वरूपान्योन्याभावरूपत्वे उक्तदोषात् वैधर्म्यस्य चि-
न्त्यमानत्वात् प्रागभावत्वादेरभावनिरूप्यत्वात् ।↑एव- 23
ञ्चेदभावेऽपि नानुगमस्तदा किमधिकेन । स्वरूपवि-
शेषादेव घटव्यवहारोऽप्यस्त्विति चेत् । न । भूतल-
विलक्षणघटानुभवात् ।↑ एक एवाभावोऽनुगत इति 24
चेत् । न । तस्य नित्यत्वेन प्रतियोगिकालेऽप्यभाव-
व्यवहारप्रसङ्गात् प्रागभावादिव्युत्पादनविरोधाच्च ।
यद्वा अभाववादिनाप्यभावज्ञानकारणमनुगतो भूत-
लबुद्धिविशेषः स्वीकार्य्यः तदरं स एवास्तु प्रमेयं

25 प्रमाणञ्च स्वप्रकाशत्वाद्बुद्धीनां।↑ननु तन्मात्रबुद्धेरभा-
वत्वे तस्याः स्वप्रकाशत्वेन प्रतियोगिज्ञानापेक्षा न
स्यादिति चेत्। न। न ग्रहणाय तदपेक्षा किन्तु
व्यवहाराय। ज्ञानस्य सत्यामिच्छायां व्यवहारार्थ-
मधिकापेक्षेति चेत्। न। दृष्टा हि व्यवहारार्थमधि-
कापेक्षा यथा परिमाणस्य दीर्घत्वव्यवहारे। तथाह्य-
धिकसङ्ख्यावच्छिन्नहस्तवितस्त्याद्यवच्छेदः परिमाणस्य
दीर्घत्वं, तद्विपरीतन्तु ह्रस्वत्वं तादृशपरिमाणञ्चावयवि-
ग्रहसमकालमेवानुभूतं दीर्घत्वव्यपदेशस्त्वल्पसङ्ख्याद्य-
26 वच्छिन्नहस्ताद्यवच्छेद्यपरिमाणज्ञानमपेक्षते, ↑ तन्मात्र-
बुद्धेरभावत्वे दृश्यप्रतियोगिज्ञानापेक्षतया दृश्यतास-
27 म्पत्त्यर्थं केश-कीटादिसूक्ष्मजिज्ञासाप्यर्थवती।↑न च
तन्मात्रबुद्धेरभावत्वे तद्विनाशे अभावाभावे भावोन्म-
ज्जनप्रसङ्ग इति वाच्यं। यथा घटाभावो बुद्धिस्तथा
बुद्ध्यभावस्यापि बुद्ध्यन्तरत्वात्। निर्जने बन्धविच्छेदे च
जलनिःसरणं नानुपपन्नं मनुष्याभावेऽपि पक्षि-कीटा-
28 दिबुद्धिविशेषसम्भवात्।↑मोक्षे पुरुषान्तरस्य नियमे
प्रमाणं नास्तीति चेत्। न। कार्य्यात् कारणकल्पनात्।
न चैवं बुद्धिनाशे पुनः संसारिता, बुद्धिधारासत्त्वात्।
न च सर्वमुक्तिः, प्रमाणाभावात्। प्रतियोगिमदधिक-

रणभिन्नाधिकरणस्वरूपस्याभावत्वे सर्वं समञ्जसमेवेति
पूर्वपक्षः ।

↑सिद्धान्तस्तु सप्रतियोगिकोऽभावोऽनुभूयते घटो न 29
पटोनेत्यनुभवात्, न तु तन्मात्रं । अतोऽभाववित्ति-
वेद्यत्वं प्रतियोगिनः, प्रतियोगिज्ञानाधीनज्ञानत्वञ्चा-
भावस्यानुभवसाक्षिकं गोसादृश्यवत् । न च केवलमधि-
करणं तज्ज्ञानं वा अभावः, प्रतियोगिज्ञानं विनापि
तद्वित्तेः तद्वित्तौ प्रतियोगिनोऽविषयत्वाच्च । सप्रतियो-
गिकत्वाभावे च कस्य प्रतियोगी घटः । ↑अथ केवल- 30
मधिकरणं तज्ज्ञानं वा अभावः स चाप्रतियोगिक-
एव, अभावव्यवहारस्तु प्रतियोगिज्ञानमपेक्षते इति
तस्य प्रतियोगी घटः घट-तदभावव्यवहारयोर्विरोधा-
दिति चेत् । न । इह घटो नेति नञर्थस्य प्रतियोगी
घटोऽनुभूयते न त्वभावज्ञानानन्तरभाविनोऽभावव्य-
वहारस्य, तस्याभावानुभवसमयेऽप्रतीतेः । व्यवह्रियते-
ऽसौ न त्वनुभूयते इति चेत् । न । तादृशानुभवं विना
तथा व्यवहाराभावात् । व्यवहारे प्रतियोगिज्ञाना-
पेक्षेत्यपि न युक्तं व्यवहर्त्तव्यज्ञानस्य सत्यामिच्छायां
व्यवहारेऽधिकापेक्षाया अदृष्टचरत्वात् । ↑लघवादिह 31

तथा कल्प्यते न त्वभाव इति चेत्। न। व्यवहार-
मात्रे तथा कारणत्वानवधारणात् व्यवहारविशेष-
स्याननुगतत्वात्। ह्रस्वत्व-दीर्घत्वे च परिमाणान्तरे
एव। तत्राप्यल्पाधिकसङ्ख्यावच्छिन्नहस्ताद्यवच्छेद्यत्वं
परिमाणस्य ह्रस्वत्वं दीर्घत्वञ्चाल्पाधिकावधिज्ञाना-
धीनज्ञातं अतो द्रव्यसमकालं परिमाणानुभवेऽपि
32 नानुभूतमिति न तदा तद्व्यवहारः।↑ गोसादृश्यं यद्यपि
गवयगतानि सामान्यानि तज्ज्ञानसमकालमेवानु-
भूतानि, तथापि गोवृत्तित्वे सति गवयवृत्तित्वं गोसा-
दृश्यत्वं गोज्ञानाधीनज्ञातमिति न तदा सादृश्यव्यव-
33 हारः।↑ स्यादेतत् अस्ति तावत्कस्यचिज्ज्ञानात् क्वचि-
दभावपदप्रयोगः सर्वसिद्धः, तत्र प्रयोगालम्बनं भूत-
लाद्येव घटवदतिरिक्ताप्रकाशात्, ततश्च यदपेक्षं यस्या-
भावपदप्रयोगविषयत्वं तत्तस्याभाव इत्युपेयते, तद्बुद्धि-
जनिताभावपदप्रयोगविषयत्वमेव घट-भूतलयोः प्रति-
योग्यनुयोगिरूपः सम्बन्धः। अत एव भूतलस्य सप्र-
तियोगिकत्वं तद्बुद्धिजनिताभावपदप्रयोगविषयत्वेन
तद्बुद्धिं विना अभावपदप्रयोगाविषयत्वात्। अनेनैवो-
34 पाधिना घटाभावादिपदव्युत्पत्तिग्रहः↑ इति चेत्। न।

अभावप्रयोगालम्बनं(१) न भूतलं न हि भूतलं घटा-
भाव इति प्रतीति-प्रयोगौ, अपि तु भूतले घटाभाव
इति भूतले घट इति वत्। भूतले घटो नास्तीति
भूतलाधिकरणातिरिक्तनञर्थप्रकाशात्। अपि च घट-
बुद्धिजनिताभावपदप्रयोगविषयत्वं भूतलस्य घटाभा-
वत्वं तथाच घटाभावत्वे तस्यावगते घटाभावपद-
प्रयोगविषयत्वं, घटाभावपदप्रयोगविषयत्वे च ज्ञाते
तस्य घटाभावत्वमित्यन्योन्याश्रयः पदप्रवृत्तिनिमि-
त्तेऽवगते पदप्रयोगनियमात्। घटाभावत्वञ्च घटा-
भावपदे प्रवृत्तिनिमित्तं। ↑ यदि च भूतलं सप्रतियो- 35
गिकं तदा प्रतियोगिनं विना केवलं न भासेत
सादृश्यादिवत्। घटाभावपदप्रयोगदशायां तत् सप्र-
तियोपिकं नान्यदेति चेत्, तर्हि घटप्रतियोगिकत्वे
तस्य घटबुद्धिजनिताभावपदप्रयोगविषयत्वं, सति च
तस्मिन् घटप्रतियोगिकत्वमित्यन्योन्याश्रयः केवल-
स्याप्रतियोगिकत्वात्। एवञ्च गोबुद्धिजनितसदृशप-
दप्रयोगविषयत्वं गवयस्य गोसादृश्यमस्तु कृतमतिरि-
क्तसादृश्येनेति सप्रतियोगिकपदार्थापलापः। ↑ अपि 36
च न केवलं भूतलमभावः भूतलाभावयोराधाराधेय-

भावानुभवात्, अभेदे तदनुपपत्तेः। दुःखवदात्म-
भिन्नस्य च आत्मनो दुःखाभावत्वे मोक्षस्यापुरुषार्थ-
त्वप्रसङ्गः आत्मनोऽसाध्यत्वात्। अथ घटवद्भूतलज्ञान-
भिन्नं भूतलज्ञानमभावः तस्य च भूतलाधारता
स्वरूपसम्बन्धेनानुभूयत इति चेत्। न। तस्य निष्प्रति-
योगिकत्वेनाभावत्वानुपपत्तेः[१] इत्युक्तत्वात्। अपि च
तज्ज्ञानं किं स्वरूपसदेवाभावव्यवहारकारणं, भूत-
लाधिकरणकनिषेधरूपतयानुभूयमानं वा, नाद्यः स्वरू-
पसतो भूतलाधेयतया प्रतीत्यनुपपत्तेः। न द्वितीयः
घटवद्भूतलज्ञानस्य तदानीमनुपस्थितेः तद्भिन्नज्ञानस्य
37 प्रत्येतुमशक्यत्वात्। ↑ किञ्च यदि घटवद्भूतलज्ञानाद्-
भिन्नभूतलज्ञानमभावः तदा घटवति दोषात्
घटवत्त्वाज्ञाने भूतलज्ञानमभावो भवेत्, तथाच तदेव
तदैव घटवत् घटाभाववच्च स्यात्, न स्याताञ्च
घटाभावज्ञान-तद्व्यवहारौ विसंवादिनौ विषयाबा-
धात्[१]। अथ वस्तुतोऽघटवतो भूतलस्य ज्ञानाद्भिन्नं
भूतलज्ञानमभावः। न च घटवति भूतलज्ञानं तथा
व्यवहारस्तु विसंवादी, तथाविधभ्रमादर्शनादिति
चेत्, तर्हि घटवतो भूतलस्य ज्ञानाद्भिन्नत्वेन ज्ञानं

भूतलज्ञानं अभावव्यवहृतिहेतुः। न च तत्सम्भवति,
स्वप्रकाशेनानुव्यवसायेन वाधिकरणज्ञाने तदप्रका-
शात् भेदप्रतियोगिनोऽनुपस्थितेः। न च ज्ञानान्तरेण
तथानुभवः, योग्यानुपलब्ध्या तत्र घटाभावनिश्चयं
विना तथा निश्चेतुमशक्यत्वात्। ↑ अपिचाधिकरण- 38
तज्ज्ञानानामननुगतत्वेनानुगताभावव्यवहारानुपप-
त्तिः। न चातिरिक्ताभावपक्षेऽपि तथा अभाव-
त्वस्यानुगतस्याभावादिति वाच्यं। अनुगताभावत्वं
विनापि घटादिर्न पट इति समानाधिकरणनिषेधा-
दनुगतव्यवहारः पटान्योन्याभावेनैकेन, एवं घटादौ
न गोत्वमित्यनुगतव्यवहार एकेनात्यन्ताभावेन, कपा-
लेषु भूतलेषु इदानीं घटो विनष्ट इत्यनुगतव्यवहारो
ध्वंसेनैकेन, घटानुत्पाददशायामेतेषु घटोनास्तीत्य-
नुगतव्यवहार एकेन प्रागभावेन, एवं चत्वारोऽनुग-
तनिषेधव्यवहाराश्चतसृभिरेव व्यक्तिभिः क्रियन्ते।
तव त्वभावचतुष्टयं तत्तदधिकरण-तत्तद्धर्मीनामननु-
गतत्वान्न सम्भवति अनुगताभावचतुष्टयव्यवहारस्य प्र-
त्येकाभावेनोपपादयितुमशक्यत्वादित्यतिरिक्ताभावव्य-
क्तिचतुष्टयसिद्धिः। तस्य च यथा अभावत्वेनैकेनैकपदा-

39 र्यत्वं तथानुपदमेव वक्ष्यामः।↑ स्यादेतत् यस्मिन्
समयविशेषे यत्र भूतले अभावः परैः स्वीक्रियते
तत्समयविशेषयोग एव भूतलस्य घटाभावः, एवञ्चेह
भूतले घटोनास्तीत्याधाराधेयभावप्रतीतिरप्युपपद्यते,
समयविशेषयोगस्य भूतलवृत्तित्वात्। न च समय-
विशेषयोगस्याभावत्वे अननुगमो दोषः, अतिरिक्ता-
भावपक्षेऽपि तुल्यत्वात् अभावत्वस्य जातेरुपाधेर्वा अस-
त्त्वात्। यदि चाभावप्रतीतिप्रयोगानुगमार्थं तत्र धर्मा-
न्तरं स्वीक्रियते तदा समयविशेषयोगवृत्त्यैव तदस्तु
लाघवादिति। तन्न। समयविशेषयोगस्य निष्प्रति-
योगिकत्वेनाभावव्यवहारासामर्थ्यात्। किञ्च भूतल-
वत् समयविशेषोऽपि अभावाधारतयानुभूयते इदानीं
भूतले घटोनास्तीति प्रतीतेः। न च तत्समयविशेषे
तत्समयविशेषयोगः, अभेदे सम्बन्धानुपपत्तौ आधा-
40 राधेयभावाभावात्।↑अपि च समये किमभावाश्रयतैव
विशेषः, तत्तत्समयस्वरूपं वा, आद्ये अभावस्वीकारः,
द्वितीये अननुगमः। मम त्वेकाभावव्यक्तेरेव तथा
नानासमयवृत्तित्वात्। किञ्च समयविशेषयोगादि-
दानीं भूतलमिति प्रतीति-प्रयोगौ स्यातां विशेषणस्य

स्वप्रकारकविशिष्टप्रत्ययजनकत्वात्, न तु भूतले घटा-
भाव इति। यदि च तत्तत्समयविशेषयोगाद्भूतले
घटाभावव्यवहारस्तदा यादृशसंस्थानविशेषविशिष्टे
कपाले घटो वर्त्तते तादृशकपालादिकमेव तत्तत्स-
मयविशेषयोगाद्घटादिव्यवहारजनकमस्तु किं घटा-
दिना प्रतीतिश्च तुल्या।↑एतेन "दृष्टस्तावदयं घटोऽत्र च 41
पतन् दृष्टस्तथा मुद्गरः दृष्टा खर्परसंहतिः परमितो-
ऽभावो न दृष्टोऽपरः। तेनाभाव इति श्रुतिः क्व निहि-
ता किञ्चात्र तत्कारणं स्वाधीना कलशस्य केवलमियं
दृष्टा कपालावली" इति निरस्तं। मुद्गरपाताद्विनष्टो घट
इति प्रतीत्यातिरिक्तविनाशानुभवात्। न च केवलभूतलं
तद्बुद्धिर्वा तज्जन्या, तेन विनापि तयोः सत्त्वात्।
त्वन्मते च तयोरभावमात्रत्वेन विनाशत्वायोगात्।
योगे वा अभावमात्रस्य विनाशित्वापत्तिः। अथ
त्वन्मते यद्विनाशकं तदेव तत्सहितं भूतलं ज्ञानं वा
विनाश इति चेत्। न। मुद्गरपातजन्यो हि विनाशो-
ऽनुभूयते। न च तस्यैव तज्जनकत्वं, सप्रतियोगिकश्च
विनाशोऽनुभूयते, न च मुद्गरपातस्तथा।↑नन्वभावेन 42
समं भूतलस्य सम्बन्धाभावात् कथं भूतले घटाभाव-

प्रत्ययः। स्वरूपसम्बन्धादिति चेत्, तर्हि घटवद्भूतल-स्यापि चत्वरीयाभावेन स्वरूपसम्बन्धोऽस्ति भूतलम-भावश्चेत्यतोऽधिकस्य स्वरूपसम्बन्धस्याभावात्। प्रति-योग्यारोप एव स्वरूपसम्बन्धः,(१) अत एवारोप्य निषिध्यत इत्युच्यत इति चेत्। न। तच्चाभावसम्बन्धे सत्यारोपः स एव चाभावसम्बन्ध इत्यन्योन्याश्रय इति चेत्। न। सम्बन्धान्तरमन्तरेण विशिष्टप्रत्ययजननयो-ग्यत्वस्य स्वरूपसम्बन्धत्वात्। न च घटवद्भूतल-चत्व-रीयाभावयोः परस्परं विशिष्टप्रत्ययः। ज्ञान-विषययोः समवाय-समवायिनोरिव सम्बन्धान्तराभ्युपगमे चान-वस्थाभिया तत्सम्बन्ध-सम्बन्धिनोरपि तादृशसम्बन्ध-स्वीकारादिति सिद्धोऽतिरिक्तोऽभाव इति(१) तद्ग्राहिका विशेषणतेति सिद्धमेतत्।

अथ शब्दखण्डे नञ्वादः ।

संसर्गाभावोऽन्योन्याभावश्च[१] नञोऽर्थः ।↑तत्र चान्वयितावच्छेदकावच्छिन्नप्रतियोगिताकत्वं व्युत्पत्तिबललभ्यं, नीलघटवति न घटः नीलघटो न घटः इत्याद्यव्यवहारात्, इह नीलघटवति न पीतोघटः पीतोघटो न
नीलः इत्यादिव्यवहाराच्च↑प्रतियोग्यभावान्वयौ च तुल्य- 3
योगक्षेमौ। तेन यत्पदोपस्थापितस्य अनुयोगिन्याधाराधेयभावसम्बन्धेनान्वयस्तत्र तत्संसर्गाभावस्यापि तथा यथा पचति चैत्रः न पचति चैत्रः चैत्रस्येदं नेदं चैत्रस्य इत्यादौ तिङाद्यर्थस्य कृत्यादेः प्रथमान्तपदोपस्थापित एव
तथेति तदभावस्यापि तत्र तथा ।↑षष्ठ्यादेश्चैत्रादिनिरू- 4
पितं स्वत्वादिकमर्थो न तु तन्निष्ठं स्वामित्वादिकं, तस्य धनाद्यवृत्तित्वेन चैत्रीयेऽपि धने नेदं चैत्रस्येति प्रसङ्गात् निरूपकत्वादेः सम्बन्धस्य प्रतियोगितानवच्छेदकत्वादि-
त्येषा दिक् ।↑यत्र चाधाराधेयभावो न संसर्गमर्य्यादया 5
लभ्यस्तत्रानुयोगिपदे सप्तम्यपेक्षा यथा भूतले घटो न

घट इत्यत्र तात्पर्य्यवशात् कदाचिद्भूतलादौ घटाभावः कदाचिद्घटादौ भूतलवृत्तित्वाभावः प्रतीयते, अतएव पृथिव्यां गन्धो न जले इत्यादौ प्रतीतेरेकविशेष्यकत्वानुभवः ।

6 ↑केचित्तु सर्व्वत्र विशेष्ये विशेषणस्याभावो नञा प्रत्याय्यते । अतएव भूतले घटो नास्ति घटौ न स्तः घटा न सन्ति इत्यादौ घटोऽस्तीत्यादाविव वचनैक्यनियम इत्यप्याहुः । तेषां जातौ न सत्तेत्यत्र गतिश्चिन्तनीया जातिसमवेतत्वस्याप्रसिद्धेः, सम्बन्धान्तरेण जातिवृत्तित्वस्य सत्तायामपि सत्त्वात् ।

7 ↑सप्तम्यर्थान्विताभावस्य विशेषणतया प्रतियोग्यन्वय इत्यपि कश्चित् ।

8 ↑यत्र च विशेषण-विशेष्ययोरभेदेनान्वयो व्युत्पन्नस्तत्रान्योन्याभावो नञा बोध्यते यथायं घटो नीलः नायं घटो नील इति तत्र विशेषण-विशेष्यपदयोः समानविभक्तिकत्वं विरुद्धविभक्तिराहित्यं वा तन्त्रं, अतएव यजतिषु ये यजामहं करोति नानुयाजेष्वित्यादावेकवाक्यत्वानुरोधात् ये यजामहमित्यादेरनुषङ्गे[1] गौरवाच्च यजतिष्वनुयाजभेदो बोध्यते विशेषणविभक्तिस्तु योग-

साधुः↑नामार्थयोर्भेदेनान्वयबोध एव प्रकारीभूतविभक्त्य- 9
र्थोपस्थितेस्तन्त्रत्वात् ↑लाघवेन तयोरन्वयबोधमात्र एव 10
तथात्वं, विशेषणविभक्तिस्तु अभेदार्थिका, नीलोत्पलं
चित्रगुरित्यादौ लुप्ताया विभक्तेरनुसन्धानमिति मते तु
न राज्ञइत्यत्र षष्ठ्यर्थसम्बन्धस्यैव अत्रापि सप्तम्यर्था-
भेदस्याभावो बोध्यतां ।

↑यत्तु करणनिषेधे विकल्पापत्तेर्भेदपरतेति, तदसत्, 11
विशेषनिषेधे सामान्यविधेस्तदितरपरतायाः "ब्राह्म-
णेभ्यो दधि दातव्यं कौण्डिन्याय न दातव्यं" इत्यादौ
व्युत्पत्तिसिद्धत्वात् विकल्पानवकाशात् ।↑न च तत्रापि 12
कौण्डिन्यभेदो बोध्यः, कौण्डिन्यपदस्य विरुद्धैकवचनाव-
रुद्धत्वात्,↑न खलु महतो राज्ञः न महतो राज्ञ इत्यत्रैव 13
महतां राज्ञो न महतां राज्ञ इत्यत्रापि राजनि महद्भेद-
भेदौ प्रतीयेते,↑एको न द्वावित्यत्रैव कथञ्चित् तत्सम- 14
र्थनेऽपि द्वितीयस्य दातव्यमित्यस्यानन्वयप्रसङ्गात् ।↑अत- 15
एव "रात्रौ श्राद्धं न कुर्व्वीत"इत्यादौ करणनिषेधेऽपि
न विकल्पावकाशः, न हि तत्रापि रात्रीतरपरता,
रात्रिभिन्ने श्राद्धविधावपि "अमावास्यायां पितृभ्यो
दद्यात्" इत्यादितो रात्रिश्राद्धप्रसक्तत्वस्य दुर्व्वारत्वात् ।

न खलु क्रियारहितं श्राद्धविधायकं वाक्यान्तरमस्ति
येनेदं तेन समं एकवाक्यतामासादयेत्। नापीदं
16 नानुयाजेष्वितिवत् पृथक्क्रियारहितं। ↑अथ रात्रौ
श्राद्धस्य प्रसक्तौ विकल्पापत्तिरप्रसक्तौ कथं निषेधः(१)
प्रसक्तं हि प्रतिषिध्यते इति चेत्, साधीयानयं मन्त्र-
पाठो यद्बलात् जलह्रदे दहनो नास्तीत्यादौ शाब्द-
बोधेऽपि परमप्रयत्नेन तत्र दहनप्रसक्तिरुपादीयते,
निषेधविधिवैयर्थ्यमिति चेत्, तात्पर्य्यानवबोधनिबन्धन-
17 रात्रिश्राद्धकरणवारणस्य तदर्थत्वात्,↑एकविषयतया पुन-
18 रनन्यगत्या षोड़शिग्रहणाग्रहणयोर्विकल्प इति,↑अत्र च
षोड़शिग्रहणं नेष्टसाधनमित्यादिकमर्थो ग्रहणविधिविरो-
धात्, अपि तु षोड़शिग्रहणाभाव इष्टसाधनमित्यादिकं,
व्युत्पन्नश्च नञ्समभिव्याहृतधात्वर्थस्याभावेऽपि विभक्त्य-
र्थान्वयः।

19 ↑अत्र प्राभाकराः "न कलञ्जं भक्षयेत्" इत्यादिश्रुतेः
कलञ्जभक्षणाभावविषयकं कार्य्यमित्यर्थ इत्याहुः। निय-
20 मतस्तु तात्पर्य्यादिवशात्↑मुख्यफलाजनकत्वेऽपि अङ्गस्य
परमापूर्व्वरूपोपकारसाधनत्वं अविरुद्धं, ग्रहणविध्यन्यथा-
नुपपत्त्या षोड़शिग्रहणादतिशयितं परमापूर्व्वं, तस्मा-

स्वातिशयितं मुख्यं फलं कल्प्यते इति सर्व्वसमञ्जसं ।↑प्रति- 21
योग्यभावयोः प्रतियोग्यनुयोगिभावो अभावाधिकरणयो-
राधाराधेयभावश्च सम्बन्धविधया भासते, निपाताति-
रिक्तस्थल एव प्रातिपदिकार्थयोर्भेदेनान्वये प्रकारीभूत-
विभक्त्युपस्थितेस्तन्त्रत्वात् । अत एव इवाद्यर्थान्वये न
षष्ठ्याद्यपेक्षा,↑अघटं भूतलं असमोदेश इत्यादौ समासे 22
सामानाधिकरण्याद्यनुरोधात् नञोऽभाववत्परता ।

↑केचित्तु प्रतियोगिपदोत्तरसुपः प्रतियोगित्वे अनु- 23
योगित्वे वा नञुत्तरस्याधिकरणत्वेन नञो वा अभाव-
वति लक्षणा ↑विभक्त्यर्थानुयोगिसमानविभक्तिकस्यैवा- 24
न्योन्याभाव-संसर्गाभावयोर्बोधने नञोऽसामर्थ्यं, तेन न
पचति न राज्ञ इत्यादौ कृत्यादेरन्योन्याभावो भूतलं न
घट इत्यादौ घटादेः संसर्गाभावो न प्रतीयते इत्याहुः ।

WORKS CITED

Āpadeva. *Mīmāṃsā-nyāya-prakāśa*. Edited and translated by Franklin Edgerton. New Haven: Yale University Press, 1929.

Arcaṭa. *Hetubinduṭīkā*. Edited by Sukhlalji Sanghavi and Muni Shri Jinavijayaji. Gaekwad's Oriental Series 113. Baroda: Oriental Institute, 1949.

Aristotle. *The Basic Works of Aristotle*. Edited by Richard P. McKeon. New York: Random House, 1941.

Ayer, A. J. "Negation," *Journal of Philosophy*, vol. 49, no. 26 (1952). Reprinted in his *Philosophical Essays*. London: Macmillan, 1954.

Berkeley, George. *Three Dialogues Between Hylas and Philonous* (1734). Edited by T. E. Jessop in *The Works of George Berkeley*, vol. II. London: Nelson, 1949.

Bhartṛhari. *Vākyapadīya*, vol. II. Edited by G. D. Sastri and others. Benares Sanskrit Series 6. Benares: Braj B. Das, 1905.

Bhattacharyya, Anantakumara. *Vimarśinī*. A commentary on Harirāma's *Jñānalakṣaṇavicārarahasya*. Edited by G. Bhattacharyya. Sanskrit College Research Series 3. Calcutta: Sanskrit College, 1958.

Bhattacharyya, D. C. *Baṅge Navya-nyāya Carcā*. Calcutta: Bangīya Sāhitya Parishat, 1952.

——— *History of Navya-nyāya in Mithila*. Darbhanga: Mithila Institute, 1958.

Bhattacharyya, Kalidas. "The Indian Concept of Knowledge and Self," *Our Heritage* (Calcutta), 2 (1954), 221 ff.; 3 (1955), 29 ff., 181 ff.; 4 (1956), 21 ff., 175 ff.

Bhavānanda Siddhāntavāgīśa. *Nañ-vāda-ṭīkā*. Included in *TCM*, Part IV: see Mathurānātha.

Bocheński, I. M. *Formale Logik*. Freiburg: K. Alber, 1956.

——— *The Problem of Universals*. Notre Dame: University of Notre Dame Press, 1956.

Bosanquet, Bernard. *The Essentials of Logic*. London: Macmillan, 1914.

Bradley, F. H. *Appearance and Reality*. Oxford: Clarendon Press, 1930.

Brentano, Franz. "The Distinction between Mental and Physical Phenomena," *Psychologie vom empirischen Standpunkte*, vol. I, book II, chapter i (1874). Translated into English by D. B. Terrell in R. M. Chisholm, ed., *Realism and the Background of Phenomenology*, pp. 39–61.

——— "Presentation and Judgment," *Psychologie vom empirischen Standpunkte*, vol. II, book II, chapter vii. Translated into English by D. B. Terrell in R. M. Chisholm, pp. 62–70.

Brough, John. "Audumbarāyaṇa's Theory of Language," *Bulletin of the School of Oriental and African Studies* (London), 14 (1952), 73ff.

——— "Some Indian Theories of Meaning," *Transactions of the Philological Society* (Oxford), 1953, pp. 161–179.

——— "Theories of General Linguistics in the Sanskrit Grammarians," *Transactions of the Philological Society* (Oxford), 1951, pp. 27–46.

Carnap, Rudolph. *Meaning and Necessity*. Chicago: University of Chicago Press, 1947; 2nd ed. with supplements, 1956. My references are to the second edition.

Chatterjee, S. C. *The Nyāya Theory of Knowledge*. Calcutta: University of Calcutta, 1939.

Chisholm, R. M., ed. *Realism and the Background of Phenomenology*. Glencoe, Illinois: Free Press, 1961.

Chomsky, Noam. *Syntactic Structures*. The Hague: Mouton, 1957.

Church, Alonzo. *Introduction to Mathematical Logic*, Part I. Annals of Mathematical Studies 13. Princeton: Princeton University Press, 1944.

——— "Propositions and Sentences," in I. M. Bocheński, ed., *The Problem of Universals*, pp. 1–11. See Bocheński.

Cohen, L. J. *The Diversity of Meaning*. London: Methuen, 1962.

Daṇḍin. *Kāvyādarśa*. Text and translation by S. K. Belvalkar. Poona: Oriental Book Supply Agency, 1924.

Datta, D. M. *The Six Ways of Knowing*. London: Allen and Unwin, 1932.

Dev, Radhakanta. *Śabdakalpadruma: An Encyclopaedic Dictionary of Sanskrit Terms*. First published in Calcutta. Reprinted in Chowkhamba Sanskrit Series 93. Benares: Chowkhamba Sanskrit Series Office, 1961.

Dharmakīrti. *Pramāṇavārttika*. Edited by Rahula Sankrityayana with the commentary of Manorathanandin. Patna: Bihar and Orissa Research Society, 1938–1940. The same with the commentary of Prajñākaragupta, called *Pramāṇavārttikabhāṣya*. Patna: K. P. Jayaswal Research Institute, 1953.

Feigl, Herbert, and Wilfrid Sellars, eds. *Readings in Philosophical Analysis*. New York: Appleton, 1949.

Foucher, A. *Le Compendium des topiques d'Annambhaṭṭa*. Paris: Adrien-Maisonneuve, 1949.

Frege, Gottlob. *Begriffsschrift*, chapter i. Halle, 1879. Translated and included in *Philosophical Writings of Gottlob Frege*, ed. Geach and Black, pp. 1–20. My references are to Geach and Black.

——— "Negation," *Beiträge zur Philosophie des deutschen Idealismus*, vol. I (1919). Translated and included in Geach and Black, pp. 117–135. My references are to Geach and Black.

——— "Über Sinn und Bedeutung," *Zeitschrift für Philosophie und philosophische Kritik*, 100 (1892), 25–50. Translated ("On Sense and Nominatum") and included in Feigl and Sellars, pp. 85–102. Also translated ("On Sense and Reference") and included in Geach and Black, pp. 56–78. My references are to Feigl and Sellars.

Gadādhara Bhaṭṭācāryya. *Gādādharī* [*TCDG*]. A commentary on *Tattvacintāmaṇi-dīdhiti*. See Raghunātha. Edited with *TC* and *TCD* by Pandit Bamacharan Bhattacharyya and others. Chowkhamba Sanskrit Series 42. Benares: Chowkhamba Sanskrit Series Office, 1913–1927.

——— *Viṣayatā-vāda*. Benares Sanskrit Series. Benares: Braj B. Das, 1886.

——— *Nañ-vāda-vivṛti*. A commentary on Raghunātha's *Nañ-vāda*. Included in *TCM*, Part IV: see Mathurānātha.

Gaṅgeśa Upādhyāya. *Tattvacintāmaṇi* [*TC*]. Edited with *Māthurī* in *TCM*: see Mathurānātha. The same edited with *Gādādharī* and *Dīdhiti* in *TCDG*: see Gadādhara. The same edited with *Jāgadīśī* and *Dīdhiti* in *TCDJ*: see Jagadīśa.

Gautama. *Nyāyasūtra* [*NS*]. In *Nyāyadarśana*, vol. I. Edited with the *Bhāṣya* of Vātsyāyana, Uddyotakara's *Vārttika*, Vācaspati Miśra's *Tātparya-ṭīkā* and Viśvanātha's *Vṛtti* by Amarendramohan Tarkatirtha and Taranath

Tarkatirtha. Calcutta Sanskrit Series 18. Calcutta: Metropolitan Publishing House, 1936.

Geach, P. T. *Reference and Generality*. Ithaca: Cornell University Press, 1962.

——— and Max Black. *Philosophical Writings of Gottlob Frege*. Oxford: Blackwell, 1960.

Harris, Z. S. *Methods in Structural Linguistics*. Chicago: University of Chicago Press, 1951.

Hintikka, Jaakko. *Knowledge and Belief*. Ithaca: Cornell University Press, 1962.

Ingalls, D. H. H. "The Comparison of Indian and Western Philosophy," *Journal of Oriental Research* (Madras), vol. 22, parts i–iv (1954), pp. 1–11.

——— *Materials for the Study of Navya-nyāya Logic*. Harvard Oriental Series 40. Cambridge, Mass.: Harvard University Press, 1951.

Jagadīśa Tarkālaṅkāra. *Jāgadīśī* [*TCDJ*]. A commentary on *Tattvacintāmaṇi-dīdhiti*. Edited with *TC* and *TCD* by Pandit Somanatha Nyayopadhyaya and others. Chowkhamba Sanskrit Series 29. Benares: Chowkhamba Book Depot, 1906–1908.

——— *Sūkti*. A commentary on *Praśastapāda-bhāṣya*, otherwise called *Padārtha-dharmasaṃgraha*. Edited by Kalipada Tarkacharyya. See Tarkacharyya.

Jānakīnātha Bhaṭṭācāryya Cūḍāmaṇi. *Nyāyasiddhāntamañjarī*. Edited by Gaurinatha Sastri. Benares: Amara Printing House, 1885.

Jayadeva (Pakṣadhara) Miśra. *Tattvacintāmaṇy-āloka* [*TCA*]. A commentary on *Tattvacintāmaṇi*. Portions printed in *TCM*: see Mathurānātha.

Jayanta. *Nyāyamañjarī*. Edited by G. Sastri Tailanga. The Vizianagram Sanskrit Series 10. Benares: E. J. Lazarus and Co., 1895.

Jha, Ganganatha, ed. *Nyāyasūtra* (of Gautama) and *Nyāya-bhāṣya* (of Vātsyāyana) along with his own commentary, *Ṭippaṇī*. Poona Oriental Series 58. Poona: Oriental Book Agency, 1939.

——— trans. Gautama's *Nyāyasūtras* (with *Vātsyāyana-bhāṣya*). Poona Oriental Series 59. Poona: Oriental Book Agency, 1939. The same was published along with the *Nyāyavārttika* of Uddyotakara in *The Indian Thought* (1912–1919).

Jñānaśrī Mitra. *Jñānaśrī-mitra-nibandhāvali*. Edited by Anantalal Thakur. Patna: K. P. Jayaswal Research Institute, 1956.

Johnson, W. E. *Logic*, Part I. Cambridge: Cambridge University Press, 1921.

Joseph, H. W. B. *An Introduction to Logic*. Oxford: Clarendon Press, 1916.

Kamalaśīla. *Tattvasaṃgraha-pañjikā*. Edited with the *Tattvasaṃgraha* of Śāntarakṣita by E. Krishnamacharyya. 2 vols. Gaekwad's Oriental Series 30, 31. Baroda: Central Library, 1926.

Kaṇāda. *Vaiśeṣika-sūtra. Vaiśeṣika-darśana*. Edited with the *Upaskāra* of Śaṅkara Miśra by Jivananda Vidyasagar. Calcutta: Saraswati Press, 1886.

Kauṇḍabhaṭṭa. *Vaiyākaraṇabhūṣaṇasāra*. Edited by S. Sastri. Anandasrama Sanskrit Series 135. Poona: Anandasrama Press, 1957.

Keith, Arthur B. *The Religion and Philosophy of the Vedas and Upanishads*. Harvard Oriental Series 31. Cambridge, Mass.: Harvard University Press, 1925.

Kumārila. *Mīmāṃsā-śloka-vārttika*. Edited with *Nyāyaratnākara* of Pārthasārathi Miśra by Rama Sastri Tailanga Manavalli. Chowkhamba Sanskrit Series 11. Benares: Chowkhamba Book Depot, 1898.

Kunjunni Raja, K. *Indian Theories of Meaning*. Adyar Library Series 91. Madras: Adyar Library, 1963.

Linsky, Leonard, ed. *Semantics and the Philosophy of Language*. Urbana: University of Illinois Press, 1952.

Mabbott, G. "Negation," *Aristotelian Society Supplementary Volume* 9 (1929), pp. 67–79.

Mādhavācārya. *Jaiminīya-nyāya-mālā*. Edited by Sivadatta Pandita. Anandasrama Sanskrit Series 24. Poona: Anandasrama Press, 1892.

Mahādeva Puṇatāmakara. *Nyāya-kaustubha: Pratyakṣa-kaustubha*. Edited by Umesh Misra. The Princess of Wales Saraswati Bhavana Texts 33. Benares: Government Sanskrit Library, 1930.

Mathurānātha. *Māthurī* or *Tattvacintāmaṇi-rahasya* [*TCM*]. A commentary on *Tattvacintāmaṇi*. Bibliotheca Indica 98. Edited by Pandit Kamakhyanatha Tarkavagisha. 4 parts. Calcutta: Asiatic Society of Bengal, 1884–1901.

Matilal, B. K. "A Discourse on the Self-Contradictory Terms," *The Calcutta Review*, 158 (1961), 10–16.

——— "The Doctrine of *Karaṇa* in Grammar and Logic," *Proceedings and Transactions of the All-India Oriental Conference* (Bhuvaneswar, 1959), pp. 303–308.

——— "The Intensional Character of *Lakṣaṇa* and *Saṃkara*," *Indo-Iranian Journal* (Leiden), 8 (1964–65), pp. 85–95.

Mill, John Stuart. *A System of Logic*. New York: Harper, 1869.

Mohanty, J. N. "On the Nature of the Prāmāṇya-Theory," *Our Heritage* (Calcutta), 8 (1960), 35 ff.

Nyāyakośa or *A Dictionary of the Technical Terms in Indian Philosophy*. Edited by MM. Bhīmācārya Jhalkīkara. Bombay Sanskrit Series 49. Bombay: Government Central Book Depot, 1893.

Pāṇini. *Aṣṭādhyāyī-sūtra-pāṭha*. Bombay: Nirnayasagara Press, 1900.

Pārthasārathi Miśra. *Nyāyaratnākara*. A commentary on Kumārila's *Śloka-vārttika*. See Kumārila.

Patañjali. *Vyākaraṇa-mahābhāṣya*. Edited by F. Kielhorn. 2nd ed. 3 vols. Bombay Sanskrit Series 18–20. Bombay: Government Central Book Depot, 1892, 1906, 1909.

Patti, G. *Der Samavāya·im Nyāya-Vaiçeṣika-system*. Scripta Pontificii Istituti Biblici 109. Rome: Pontificio Istituto Biblico, 1955.

Plato. *The Sophist and the Statesman*. Translated by A. W. Taylor. London: Nelson, 1961.

Potter, K. H. "Are the Vaiśeṣika 'Guṇas' Qualities?" *Philosophy East and West* (Honolulu), 4 (1954–55), 259–264.

——— "An Ontology of Concrete Connectors," *The Journal of Philosophy*, vol. 58, no. 3 (February 1961), pp. 57–65.

——— Review of Ingalls, *Materials* . . . , *Philosophy East and West* (Honolulu), 4 (1954–55), 271 ff.

Prabhākara Miśra. *Bṛhatī*. A commentary on the *Mīmāṃsā-sūtrabhāṣya* of Śabara with the *Ṛju-vimalā* of Śālikanātha. *Tarkapāda*. Edited by S. K. R. Sastri. Madras University Sanskrit Series 3, Part I. Madras: Madras University, 1934.

Praśastapāda. *Padārthadharmasaṃgraha* or *Padārtha-praveśa* (?); also called *Praśastapāda-bhāṣya*. Edited with the *Nyāyakandalī* of Śrīdhara by Vindheswariprasad Dvivedin. See Śrīdhara.

Putnam, H. "Dreaming and 'Depth Grammar,' " in *Analytical Philosophy*. Edited by R. J. Butler. London: Blackwell, 1962.

Quine, Willard Van Orman. *From a Logical Point of View*. Cambridge, Mass.: Harvard University Press, 1953.

——— *Methods of Logic*. Revised edition. New York: Holt, 1959.

——— *Word and Object*. Cambridge, Mass.: Massachusetts Institute of Technology Press and Wiley, 1960.

Raghudeva Nyāyālaṅkāra. *Nañ-vāda-ṭippaṇī*. A commentary on Raghunātha's *Nañ-vāda*. Portions printed in Taranatha Tarkavacaspati's *Vācaspatya*, pp. 3941–3949. See Taranatha.

Raghunātha Śiromaṇi. *Nañ-vāda*. Printed as an appendix to the *Tattvacintāmaṇi* of Gaṅgeśa in the Bibliotheca Indica edition, edited by Pandit Kamakhyanatha Tarkavagisha, Part IV, vol. II, pp. 1010–1086: see Mathurānātha. The same printed in the *Vācaspatya* of Taranatha Tarkavacaspati under the word '*Nañ*': see Taranatha.

——— *Padārtha-tattva-nirūpaṇa* [*PTN*]. Edited with the commentaries of Raghudeva and Rāmabhadra by Vindheswariprasad Dvivedin. Reprinted from the 1903–1905 issues of *The Pandit*. Benares: E. J. Lazarus and Co., 1916.

——— *Tattvacintāmaṇi-dīdhiti* [*TCD*]. A commentary on the *Tattvacintāmaṇi* of Gaṅgeśa. Edited with *Jāgadīśī:* see Jagadīśa. The same edited with *Gādādharī:* see Gadādhara.

Ramsey, F. P. "Universals" (1925). Included in R. B. Braithwaite, ed., *The Foundations of Mathematics*, pp. 112–134. London: Kegan Paul, 1954.

Ratnakīrti. *Ratnakīrti-nibandhāvalī*. Edited by Anantalal Thakur. Patna: K. P. Jayaswal Research Institute, 1957.

Ruben, W. *Die Nyāyasūtra's: Text, Übersetzung, Erläuterung und Glossar*. Deutsche Morgenlandische Gesellschaft, Abhandlungen für die Kunde des Morgenlandes, vol. 18, no. 2. Leipzig: F. A. Brockhaus, 1928.

Rucidatta. *Prakāśa*. A commentary on the *Tattvacintāmaṇy-āloka* of Jayadeva. Portions printed in *TCM*, Part IV, vol. II: see Mathurānātha.

Ruegg, David S. *Contributions à l'histoire de la philosophie linguistique indienne*. Publications de l'Institut de Civilisation Indienne 8. Paris: E. de Boccard, 1959.

Russell, Bertrand. *An Enquiry into Meaning and Truth*. London: Allen and Unwin, 1940.

——— *Introduction to Mathematical Philosophy*. London: Allen and Unwin, 1919. Tenth printing, 1960.

——— "On Denoting," *Mind*, 14 (1905), 479–493. Reprinted in Feigl and Sellars, *Readings in Philosophical Analysis*, pp. 103–115.

——— *The Problems of Philosophy*. Oxford: Home University Library, 1912.

Ryle, G. *Dilemmas*. Cambridge: Cambridge University Press, 1954.

——— "Negation," *Aristotelian Society Supplementary Volume* 9 (1927), pp. 80–96.

Śabara. *Mīmāṃsādarśana*. Also called *Śabara-bhāṣya*. Bibliotheca Indica 45. Calcutta: Asiatic Society of Bengal, 1889.

Śālikanātha. *Prakaraṇapañcikā*. Edited by Mukunda Sastri and Laxmana Sastri Dravida. Chowkhamba Sanskrit Series 17. Benares: Chowkhamba Book Depot, 1904.

Śaṅkara Miśra. *Upaskāra* or *Vaiśeṣikasūtropaskāra*. A commentary on *Vaiśeṣikasūtra*. See Kaṇāda.

Śāntarakṣita. *Tattvasaṃgraha*. See Kamalaśīla.
Sapir, Edward. *Language: An Introduction to the Study of Speech*. New York: Harcourt, Brace, 1921.
Sastri, Gaurinath. *The Philosophy of Word and Meaning*. Sanskrit College Studies. Calcutta: Sanskrit College, 1959.
Śivadatta Miśra. *Gaṅgā*. A commentary on *Jāgadīśī-Vyadhikaraṇa*. Edited by Pandit Dhundhiraja Sastri. The Kashi Sanskrit Series 89. Benares: Chowkhamba Office, 1931.
Śrīdhara. *Nyāyakandalī* [*NK*]. A commentary on *Padārthadharmasaṃgraha*, also called *Praśastapāda-bhāṣya*. Edited by Vindheswariprasad Dvivedin. The Vizianagram Sanskrit Series 6. Benares: E. J. Lazarus and Co., 1895.
Śrīharṣa. *Khaṇḍanakhaṇḍakhādya* [*KKh*]. Edited by Laxmana Sastri Dravida. Chowkhamba Sanskrit Series 21. Benares: Chowkhamba Book Depot, 1914.
Staal, J. F. Review of Ingalls, *Materials . . .* , *Indo-Iranian Journal*, vol. 4 (1960).
Strawson, P. F. *Individuals*. London: Methuen, 1959.
——— *Introduction to Logical Theory*. London: Methuen, 1952.
Taranatha Tarkavacaspati. *Vācaspatya*. An Encyclopaedic Dictionary of Sanskrit Terms. First published in Calcutta. Reprinted in Chowkhamba Sanskrit Series 94. Benares: Chowkhamba Office, 1962.
Tarkacharyya, Kalipada. *Sūktidīpikā*. Edited with *Praśastapāda-bhāṣya* and the *Sūkti* of Jagadīśa. Sanskrit Sahitya Parishat Series 15. Calcutta: Sanskrit Sahitya Parishat, 1927.
Tarski, Alfred. "The Semantic Conception of Truth and the Foundations of Semantics," *Philosophy and Phenomenological Research*, 4 (1944), 341–376. Reprinted in Feigl and Sellars, pp. 52–84, and in Linsky, pp. 13–47.
Thomson, Manley. "Abstract Terms," *Philosophical Review*, 68 (1959), 281–302.
Udayana. *Kiraṇāvalī: Vaiśeṣika-darśana*. A commentary on *Praśastapāda-bhāṣya*. Edited by V. P. Dube. Benares Sanskrit Series 9. Benares: Braj B. Das, 1885–1919. The same edited by MM. Sivachandra Sarvabhauma. Bibliotheca Indica 200. Calcutta: Asiatic Society of Bengal, 1911.
——— *Nyāyakusumāñjali*. Edited by Laxmana Sastri Dravida. The Kashi Sanskrit Series 30. Benares: Chowkhamba Office, 1912.
Uddyotakara. *Nyāyavārttika*. Edited with Gautama's *Nyāyasūtra:* see Gautama.
Vācaspati Miśra I. *Tātparya-ṭīkā*. Edited with Gautama's *Nyāyasūtra:* see Gautama.
Vallabha. *Nyāyalīlāvatī*. Edited by Pandit Harihara Sastri. Chowkhamba Sanskrit Series 64. Benares: Chowkhamba Office, 1927–1934.
Vātsyāyana. *Nyāyabhāṣya*. Edited with Gautama's *Nyāyasūtra:* see Gautama. The same edited by Ganganatha Jha: see Jha, Ganganatha.
Vidyabhusana, S. C. *The Nyāyasūtras of Gautama*. Text and translation. Sacred Books of the Hindus vol. 8. Allahabad: Panini Office, 1913.
Viśvanātha. *Nyāya-sūtra-vṛtti*. Edited by Ashubodha Vidyabhusana and Nityabodha Vidyaratna. Calcutta: Vacaspatya Press, 1919.
——— (?). *Bhāṣāpariccheda* and *Siddhāntamuktāvalī*. Edited with the commentary of Srikrishnavallabha. Benares: Nageswar Pathsala, 1940.
White, Morton. *Toward Reunion in Philosophy*. Cambridge, Mass.: Harvard University Press, 1956.
Wittgenstein, L. *Tractatus Logico-Philosophicus*. D. F. Pears and B. F. McGuinness, trans. New York: Humanities Press, 1961.

SANSKRIT INDEX

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